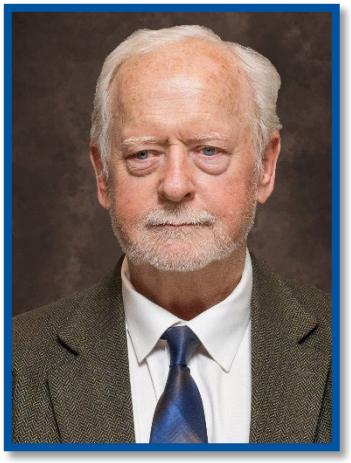

John W. Gillespie, Jr.
Director, Center for Composite Materials *(1996-2023)*
Donald C. Phillips Professor
Department of Materials Science & Engineering
Department of Civil & Environmental Engineering
Department of Mechanical Engineering
Department of Electrical and Computer Engineering *(2022)*
University of Delaware
Newark, DE 19716

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Prof. Gillespie's Google Scholar Page

Table of Content

Executive Summary

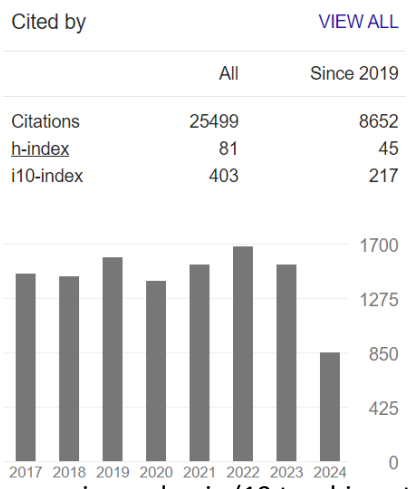
Dr. Gillespie has served the University of Delaware Center for Composite Materials (UD-CCM) in several roles since 1981, achieving the position of Director in 1996. Dr. Gillespie is also the Donald C. Phillips Professor of Civil and Environmental Engineering and holds joint appointments in the departments of Materials Science and Engineering, Mechanical Engineering and Electrical and Computer Engineering.

As Director, Dr. Gillespie has established an internationally recognized center of excellence in composites. He has created an intellectually stimulating and highly interdisciplinary research environment for affiliated faculty, research professionals, graduate and undergraduate students, postdoctoral fellows, visiting scholars and industry partners to collaborate among themselves as well as with the Center's government and industrial sponsors. Dr. Gillespie has established a dedicated state-of-the art composites facility and maintains an open-lab philosophy to encourage participation in research and educational activities. Under his leadership, he has nearly doubled the size of UD-CCM with 52,000 sq. ft of laboratory space housed in two facilities housing more than $25M in equipment. On campus, basic and applied research is conducted in our Composites Manufacturing Science Laboratory. Off-campus, larger scale manufacturing and prototyping is conducted at his Application and Technology Transfer Laboratory. As Director, Dr. Gillespie directly supervises approximately 40 research professionals, administration and technical support staff and manages an annual research expenditure of $15.3M derived from contracts and grants in FY 22.

Building on traditional strengths and by funding new initiatives, Dr. Gillespie has engaged more than 57 affiliated faculty from 5 colleges that advise undergraduate, graduate, and post-doctoral students in exciting new composite research areas of basic research. Dr. Gillespie has maintained a commitment to undergraduate education and research by continuing the CCM undergraduate research program with more than 76 students and over 40 researchers have been involved in CCM activities in 2022.

In 1996, Dr. Gillespie assumed leadership of the Center's University-Industry Consortium, "Application of Composite Materials to Industrial Products," with only three members. More than 400 companies have participated in the consortium. To meet the needs for applied research and technology transfer, Dr. Gillespie has hired a full-time research professional staff with a wide range expertise in composites to work closely with our industrial and government sponsors as well as the faculty and students. Dr. Gillespie has worked diligently to maintain an optimum balance of basic and applied research to ensure that CCM is not only at the forefront of the science of composites but also able to solve real-world engineering problems to benefit the Center's sponsors. Dr. Gillespie has established major research programs through numerous university-industry-government partnerships.

Dr. Gillespie is also an accomplished researcher and educator. Dr. Gillespie has been the Principal Investigator (PI) or co-PI on five prestigious Centers of Excellence since 1996. He was the PI of two Army Research Laboratory (ARL) Centers of Excellence (1996-2014), one in multifunctional composite materials and the other in mechanics and performance of composites. He was also co-PI on an Office of Naval Research (advanced materials and intelligent processing) established in 1997-2014. The fourth was funded by the Federal Aviation Association (advanced composite materials for commercial aircraft) as part of the Wichita State University team. In 2012, ARL established a Cooperative Research Alliance with Hopkins, Rutgers and Cal Tech and UD on Materials Under Extreme Dynamic Environments of which Dr. Gillespie is a member of the core management committee and UD's PI. This major center was renewed this year through 2022. Overall, Dr. Gillespie has received over $180 million as PI/Co-PI and supervised as Director $223 million from industry and government sources to support his research and Center activities.



Dr. Gillespie has an impressive record of scholarship conducting high quality basic and applied research in collaboration with his students and colleagues from academia, government, and industry. He has authored/co-authored more than 1,003 publications in composites science and technology including 1 encyclopedia set, 18 book/book chapters, 24 patents, 390 refereed journal papers and 578 proceeding papers (also presented at the conferences). His work has been highly cited by his peers with more than 25,499 citations and an h-index of 81 and i10-index of 403.

(Google Scholar 6/7/2024)

As a teacher and mentor, he has advised more than 48 PhD and 57 master's students. His former students have gone on to successful careers in academia (19 teaching at other universities), government, and industry. He was chosen as the recipient of the Faculty Advisors Award from SAMPE in 2001. He has also been proactive as a mentor to Historically Black Colleges and Universities as a Member of the National Science Foundation Task Force for Development of the first Doctoral Program at Tuskegee University (an HBCU). Today, he is an adjunct faculty member at Tuskegee. He also served as Chair of the external advisory board for the NSF CREST program for Southern University (a Minority Institution). He has hosted faculty and students from both HBCU schools at UD-CCM. In addition to his graduate students, Dr. Gillespie's research group also includes 50 research faculty, professionals, and technicians.

Dr. Gillespie has served as a member of the prestigious and influential National Research Council Board on Manufacturing and Engineering Design, and Chair of the National Materials Advisory Board Committee on High-Performance Structural Fibers for Advanced Polymer-Matrix Composites. Dr. Gillespie has been Editor of the Journal of Thermoplastic Composite Materials since 1993, and he serves on numerous editorial boards. Over the past few years, Dr. Gillespie was the Co-Chair of the 24th Technical Conference of the American Society for Composites and the Canadian Association for Composite Structures and Materials, Chair of the International Advisory Committee for the Second World Conference on 3D Fabrics and Their Applications, Co-Chair, TEXCOMP9, International Conference on Textile Composites and International Co-Chair of the 13th US-Japan Conference on Composite Materials, held in Tokyo, Japan. He has been a member of Society of Plastics Engineers since 1991 as member and secretary of the Steering Committee of the Special Interest Group on Joining of Plastics and Composites (1991-2002) and currently serves on the Board of Directors for SPE Composites Division.

Dr. Gillespie's contributions have been recognized through a number of honors and awards. He was a co-recipient of the U.S. Army's Paul A. Siple Memorial Award, announced at the 21st Army Science Conference in 1998, for his research on processing of multifunctional armor materials. His work on diffusion-enhanced adhesion for improved ballistics was cited in 1997 in the Department of Defense (DOD) booklet, Defense Basic Research-Rapid Transition from the Laboratory to the Field. The technology was one of only 17 examples of basic research recognized throughout the entire DOD. He was the first academic recipient of the prestigious Jud Hall Composites Manufacturing Award bestowed in 2000 by the Composites Manufacturing Association of the Society of Manufacturing Engineers. His research team was selected in 2004 by the American Composites Manufacturing Association for the Best of Show Award recognizing projects that are superior to all others in manufacturing, design, process innovation and use of composite materials. In 2008, he was acknowledged as the Most Cited Author (2005-2008) by the International Journal of Solids and Structures. In 2009, he was selected by the American Society for Composites as the recipient of the Outstanding Research Award and acknowledged with the Department

of Mechanical Engineering Distinguished Career Alumni Award. In 2012, he was selected as a fellow of the American Society for Composites. In 2013 he was recognized as the co-recipient of the American Society for Civil Engineers Charles Pankow Award for Innovation. He was also one of only six individuals elected to the 2013 Society of Manufacturing Engineers College of Fellows. In 2015, he was one of four elected as a Fellow of SAMPE. In 2016, he received the Wayne W. Stinchcomb Memorial Award from the American Society for Testing and Materials. At CAMx 2016, his UD-CCM team and industry (BMW, NCMS) and government partners (National Highway Transportation Safety Administration) was selected as a Finalist for Unsurpassed Innovation Category for their project on Carbon Fiber Thermoplastic B-Pillars. Dr. Gillespie has also received numerous best papers and best presentation awards over the years.

In 2018, he was elected as a Fellow of SME. In 2019, his research team was selected as the recipient of the CAMX Award for Composites Excellence (ACE) in the Infinite Possibility for Market Growth Category. In 2020, SAMPE selected his team as the recipient of the Delmonte Award for Innovation Excellence. Dr. Gillespie has also received numerous best papers and best presentation awards over the years.

Specialty Areas: **Composites, processing, mechanics, design, interphase science, adhesion, joining, experimental methods.**

Most Important Achievements

1) To meet the needs of industry, Dr. Gillespie led his research group to develop the co-injection resin transfer molding process. In this process, vacuum assisted resin transfer molding process was advanced to allow for the infusion and control of multiple resins through thickness of a composite preform in single step. The original application was the need for fire retardant resin such as phenolic to be infused with structural resins such as epoxy and vinyl ester to meet the flammability requirements for Navy topside structures and Army ground vehicle applications. A key to the success of the process was the incorporation of an impermeable barrier layer in the preform and the retention of excellent bonding of the dissimilar resins with this layer. This led to the invention of diffusion-enhanced adhesion, where thermosetting resins diffuse into thermoplastic barrier layers and cure leading to outstanding damage tolerance. These inventions were transferred to Navy industrial subcontracts and used in full-scale manufacturing demonstrations of the Director Room on Navy ships. These technologies were also transitioned to United Defense and used in Tank Automotive Research and Development Center's Composite Armored Vehicle Advanced Technology Demonstrator (a 22-ton all-composite combat vehicle). In this program, the damage tolerance of the interface was proven out through ballistic testing and 6,000 miles of durability testing of the vehicle. These two technologies were recognized by Assistant Secretary of the Army Anita Jones in Defense Basic Research—Rapid Transition from the Laboratory to the Field. This technology was one of only 17 examples of basic research recognized throughout the entire DoD. The science associated with these inventions led to many journal papers as well as receipt of the U.S. Army's Paul A. Siple Memorial Award, announced at the 21st Army Science Conference, for our research on processing of multifunctional armor materials.

2) A second highlight of the successful transition of research and development into practice was Dr. Gillespie's research into induction processing of thermoplastic composite materials. In this project, basic research established the three important volumetric heat generation mechanisms resulting from the interaction of electromagnetic fields with continuous fiber thermoplastic prepreg. These studies established the foundation for the invention of new induction-based lamination processes. Process models were developed allowing for coil design to promote uniform heating in arbitrary laminate stacking sequences. Process models established in UD-CCM's thermoplastic tape placement process (another highlight) were adapted to optimize the consolidation process and to design the manufacturing equipment including sensors and control systems. Laboratory-scale equipment was built, and the process was proven out. The process was then hardened and transitioned to our industrial partner (Alliant Tech Systems) and integrated into their automated factory. Our automated induction-based laminator produced autoclave quality at production rates of 20ft/min leading to labor cost savings of nearly 40% by replacing more than 20 hand-lay-up vacuum debulk stations. This process has been a commercial success producing thick-section composites for the US Army for nearly a decade. This project resulted in multiple patents and many high-quality publications in materials, processing and manufacturing. This project is an excellent example of bridging basic research to commercial success (TRL 1-9)

3) A third highlight of the success transition of research and development was the development of the thermoplastic composite tow placement manufacturing for aerospace structures. This effort was funded as part of a DARPA program on affordable composites manufacturing and brought DuPont, Hercules, NASA, Cincinnati Milacron and UD together. In this project UD-CCM was the prime, and Dr. Gillespie provided overall program management for the team as well as

leading his research group. The original need was to develop a new manufacturing process for large-scale aerospace wing and fuselage structures using high-temperature thermoplastic composites to meet the demanding service environment of the high-speed transport. Today this process is highly desirable as an affordable out-of-autoclave manufacturing process. The vision was to marry DuPont's thermoplastic filament winding technology with Hercules thermoset fiber placement equipment. The technical challenge was to develop and commercialize new head technology with heating, consolidation, and cooling capability to produce aerospace quality laminates without secondary processing. Dr. Gillespie's group focused on understanding the relationship between the process physics to final material part quality and properties. Comprehensive modeling and simulation of the tape placement process was conducted incorporating the effects of multiple passes on void reduction within tapes, the interdiffusion between tapes required to achieve full interlaminar properties and the final residual stress states including part-tool interactions. This project led to the design and fabrication of a laboratory-scale robotic head for processing trials and model validation. Later these models were used to optimize the head configuration for maximum throughput and over time this culminated in a series of commercial heads sold originally by Cincinnati Milacron and more recently Accudyne Systems.

4) A fourth highlight was the development of composites for bridge infrastructure renewal that was funded by DARPA. Our team consisted of DelDOT, FHWA, DuPont Hardcore Composites and HCB. Dr. Gillespie and Dr. Mertz were the UD co-PI's. The project designed and erected one of the first all-composite bridge on the federal highway system that met all State and Federal bridge requirements. The project received the State of Delaware Project of the Year Award in 1998. The project continued with the development of affordable manufacturing methods for composite girders for rail and bridge systems. Dr. Gillespie's research group worked closely with a bridge designer and inventor to turn a concept into full scale projection process for bridge girders up to 70 ft in length. The girders were tested at various length scales in the laboratory and proven out in the field on the nation's rail test track. The bridge systems have now passed all federal requirements and are commercially products. This project was selected as the recipient of the prestigious ASCE Charles Pankow Award for Innovation in 2013.

5) The fifth achievement is related to the management, leadership, impact, and sustainment of the Center for Composite Materials at the University of Delaware. UD-CCM has achieved international recognition as a leader in composites education and research. Under Dr. Gillespie's leadership, UD-CCM has been designated a Center of Excellence by DOD (1996-2022) through multiple competitions throughout his tenure as Director and PI/co-PI of those programs. He has tripled the size of the research enterprise and nearly doubled the size of the laboratory space. He has successfully created a center where long term basic research by faculty and students and industry relevant applied research by research professionals are further matured leading to successful innovation and product development within a single organization. Dr. Gillespie has established over the past decade a shared research and development facility that spans TRL1-9. Our government funded Centers of Excellence combined with our strategic industry (University-Industry Consortium Application of Composite Materials to Industrial Products) and our academic partnerships with our collaborative research environment has resulted in a highly successful university-industry-government partnerships and successful transitions and commercialization of technology. This has been the key to long term sustainment of UD-CCM as a soft-funded research center for more than 40 years.

6) A sixth achievement is the development of the Materials in Extreme Dynamic Environments (MEDE) program. UD-CCM along with Johns Hopkins University, California Institute of Technology, Rutgers and the Army Research Laboratory under the authority of MEDE Collaborative Research Alliance, joins experts from across the country to collaborate and help the US Army develop new lightweight materials to better protect soldiers and vehicles. The objectives of the MEDE program are to develop the technical and workforce capability to design, create, and optimize novel material systems that exhibit revolutionary performance in extreme dynamic environments. The objective is not necessarily to produce a specific material system that is optimized for a specific range of applications, but rather to produce a way of thinking that will allow the design of lightweight protective material systems that can be used for extreme dynamic environments. To achieve the MEDE program objectives, research activities are focused on a materials-by-design process for composite and polymeric materials involving a canonical model and a mechanism-based strategy. This involves the development of new computational tools whose predictive capabilities span length scales from the atomistic level to the macroscopic building block (single filament-yarn-single composite ply) as well as time scales ranging from 10-1-10-9 seconds. In order to obtain model input parameters and provide model validation, new experimental techniques are being developed to identify and quantify rate-dependent failure modes for both composite and polymer textile materials. The intent is that insights generated through this effort are used to guide the optimization of material composition (molecular architecture, fiber/Resin adhesion, composite microstructure) and process techniques to achieve new material systems with dynamic mechanical properties that significantly exceed those of the state of the art. This program brings the very latest cutting edge computational and experimental technologies to CCM's long history of a "Materials by Design" philosophy.

7) Most recent achievement, in coordination with the Defense Advanced Research Projects Agency (DARPA) our team developed a manufacturing process and facility to produce TuFF (Tailored Universal Feedstock for Forming. TuFF is a highly aligned discontinuous carbon fiber preform in thin-ply format which can be combined with thermoplastic or thermoset resins for prepreg or used in dry form for infusion-based manufacturing processes. A patented discontinuous fiber alignment and preforming process has been developed and implemented in a pilot facility at UD-CCM. The alignment process is fiber agnostic and TuFF preforms have been manufactured with aerospace grade fiber (IM7, T800), pitch carbon fiber, and recycled carbon fiber. Using discontinuous IM7 carbon fiber and Polyetherimide (PEI) thermoplastic resin, TuFF composites with aerospace quality requirements (‹1% voids, up to 63% fiber volume fraction) have demonstrated 100% translation of fiber stiffness and strength in tension, and >40% bi-axial in-plane strain capability during forming. The in-plane stretch ability of TuFF preforms enables conformability of simple planar preforms to complex geometries, eliminating the need for darting and complex ply patterns while minimizing associated scrap during composite layup. Closed-loop recycling and reuse strategies are possible for the first time with the ability to reuse fiber and preform scrap, prepreg scrap and recycled composite parts.

Publications: Summary

- 1 Encyclopedia (six book series)
- 18 Book and Book Chapters
- 24 Patents
- 390 Refereed Journal Publications: 1978-Present
- 578 Conference Proceedings (also presented at Meetings): 1978-Present
- 88 Invited Presentations: 1986-2022

Specialty Areas: **Composites, processing, mechanics, design, interphase science, adhesion, experimental methods.**

Education

- Ph.D., 1985, Mechanical and Aerospace Engineering, University of Delaware
- M.M.A.E., 1978, Mechanical and Aerospace Engineering, University of Delaware
- B.M.E., 1976, Mechanical and Aerospace Engineering, University of Delaware

Experience

2019 to 2022
Professor, Department of Electrical and Computer Engineering, University of Delaware

2013 to Present
Professor, Department of Mechanical Engineering, University of Delaware

2005 to Present
Named Donald C. Phillips Professor, Department of Civil & Environmental Engineering, University of Delaware

1999 to Present
Professor, Department of Civil & Environmental Engineering, University of Delaware
Professor, Department of Materials Science & Engineering, University of Delaware

1998 to 2010
Adjunct Faculty, Materials Science and Engineering Program, Tuskegee University

1996 to 2023
Director, Center for Composite Materials, University of Delaware

1996 to 1999
Associate Professor, Department of Civil & Environmental Engineering, University of Delaware

1994 to 1999
Associate Professor, Department of Materials Science & Engineering, University of Delaware

1990 to 1996
Associate Director and Member of Board of Directors, Center for Composite Materials, University of Delaware

February 1989 to 1994
Research Faculty Member, Materials Science Program, University of Delaware
Research Faculty Member, Department of Mechanical Engineering, University of Delaware

August 1986 to 1990
Assistant Director for Research, Center for Composite Materials, University of Delaware

September 1986 to July 1989
Research Assistant Professor of Mechanical Engineering, University of Delaware

January 1986 to March 1989
Scientist, University of Delaware

July 1983 to December 1985
Associate Scientist, Center for Composite Materials, University of Delaware

October 1981 to June 1983
Research Associate III, Center for Composite Materials, University of Delaware

Professional Awards

1. 2020 SAMPE Delmonte Award for Innovation Excellence – SAMPE North America Awards Committee
2. CAMX Award for Composite Excellence (ACE): Infinite Possibility for Market Growth Category. September 2019.
3. Elected in May 2018 as SPE Fellow.
4. CAMX Finalist for Unsurpassed Innovation Category: Carbon Thermoplastic B-Pillars.
5. Wayne W. Stinchcomb Memorial Award from the American Society for Testing and Materials, September 2016.
6. SAMPE Fellow Award in recognition of your extensive history of research support, technology advancement, individual mentoring and support of the society, June 2015.
7. Elected in 2013 to the SME College of Fellows.
8. Selected as co-recipient of the American Society for Civil Engineers 2013 Charles Pankow Award for Innovation.
9. Elected in 2012 as Fellow of the American Society for Composites.
10. 2009 ASC Outstanding Research Award; Quoting the Society guidelines: A nominee for the ASC Outstanding Research Award shall have made contributions to the science and technology of composite materials by way of analytical modeling, numerical modeling, design methodologies, and/or experimental work that have led to a greater understanding of the behavior of composite materials.
11. Distinguished Career Alumni Award, Department of Mechanical Engineering, University of Delaware, May 1, 2009.
12. 2004 American Composites Manufacturing Association Best of Show Award recognizing projects that are superior to all others in manufacturing, design, process innovation, and use of composite materials, November 2004.
13. Space Act Award, "Ceramic Composite Advanced Tow Placement (CCATP) Process: A Rapid Prototyping Technique for Continuous Fiber Reinforced Ceramic Matrix Composites," NASA Tech Briefs Magazine, September 2002.
14. Faculty Advisors Award, Society for the Advancement of Material and Process Engineering, 2001.
15. J. H. "Jud" Hall Composites Manufacturing Award of the Composites Manufacturing Association, Society of Manufacturing Engineers, 2000 Award recognizing outstanding contributions to the advancement of composites manufacturing.
16. ASCE Delaware Section Project of the Year Award: "Use of Glass-Fiber-Reinforced Composite Panels to Replace the Superstructure for Bridge 351 on N387A Over Muddy Run," February 1999.
17. Paul A. Siple Memorial Award: "Co-Injection Resin Transfer Molding for Optimization of Integral Armor," (with B. K. Fink and S. H. McKnight), 21st Army Science Conference, *Science and Technology for Army After Next*, Norfolk, VA, June 15–17, 1998 recognizes best basic research contributions in U.S. Army.

18. "Defense Basic Research-Rapid Transitions from the Laboratory to the Field" recognized notable achievements by world-class scientists and engineers. Dr. Gillespie's research on Diffusion Enhanced Adhesion was selected as one of only 17 examples throughout the entire Department of Defense, May 1997.

Best Paper Awards

1. Best Paper Award. Proceedings of the Automotive Composites Conference & Exhibition, Society of Plastic Engineers, Detroit, MI, Sept. 5-7, 2018. Tamrakar, S., R. Ganesh, S. Sockalingam, J. W. Gillespie, Jr., "Determination of Mode II Traction Separation Law for S-2 Glass/Epoxy Interface Under Different Loading Rates Using a Microdroplet Test Method."
2. Outstanding Paper Award 2nd Place SAMPE 2015, Baltimore, MD, May 18-21, 2015 Zhang, D., D. Heider, and J. W. Gillespie, Jr., "Role of Prepreg Interlayer Permeability on Void Reduction During Oven Vacuum Bag Processing of Thick Section Thermoplastic Composites."
3. ASME Mechanisms & Robotics Committee Best Paper Award at the 39th Mechanisms and Robotics Conference, Boston, MA, August 4, 2015, J-H Park, S. Yarlagadda, P. Stegall, J. Tierney, S. K. Agrawal, S. Sharma, and J. W. Gillespie, Jr., "Wearable Upper Body Suit for Assisting Human Load Carriage."
4. Best Paper Award, presented at the 25th Annual Technical Conference, hosted by the University of Dayton, Dayton, OH, September 21, 2010, for paper presented at the 24th Annual Technical Conference of the American Society for Composite and the Canadian Association for Composite Structures and Materials, University of Delaware, Sept. 15-17, 2009, with B. A. Gama, T. A. Bogetti, and J. W. Gillespie, Jr., "Impact, Damage and Penetration Modeling of Thick-Section Composites using LS-Dyna MAT 162."
5. Best Paper Award 1st Place SAMPE 2005 Symposium & Exhibition (50th ISSE), Long Beach, CA, May 1-5, 2005, with B. A. Gama, S. M. W. Islam, M. Rahman, T. A. Bogetti, B. A. Cheeseman, C-F. Yen, and C. P. R. Hoppel, "Punch Shear Behavior of Thick-Section Composites under Quasi-Static, Low Velocity, and Ballistic Impact Loading."
6. Best Paper Award, Joining of Plastics & Composites Special Interest Group, ANTEC 98: "A Predictive Neural Network Controller for Thermoplastic Tow Placement," with D. Heider, and M. J. Piovoso, Society of Plastics Engineers, 1998.
7. Best Paper in the Body/Fuselage session: "The Role of Surface Preparation on the Performance of Metal to Polymer Adhesive Joints," (with S. H. McKnight and P. E. Bourban), 10th Annual ASM/ESD Advanced Composites Conference, November 7–10, 1994.
8. Best Paper in Track: "A Study of Improved Bonding Techniques for High Performance Thermoplastic Composites," (with R. C. Don and S. H. McKnight), Advanced Composites X: Proceedings of the 10th Annual ASM/ESD Advanced Composites Conference and Exposition, 1994.
9. Best Presentation: "Design, Analysis, and Hydrotesting of a Composite Cylinder Joint for Pressure-Hull Applications," (with S. M. Andersen, K. Newman, M. A. Lamontia and B. Olson), ASTM STP on Compression Response of Composite Structures, November 1992.
10. Best Advanced Composites Paper: "Processing and Performance of Resistance Welded Thermoplastic Composites," (with L. J. Bastien and R. C. Don), 45th Annual Conference of the Composites Institute (SPI), February 1990.
11. Tamrakar, Sandeep, Couvreur, R., Kiziltas, A., Mielewski, D., Gillespie, Jr., John W., "Water Absorption Behavior of Recycled PP and PA6 Composites Reinforced with Natural Fibers", https://www.4spe.org/i4a/pages/index.cfm?pageid=6163, SPE Automotive Composites Conference & Exhibition (ACCE), Virtual Event, Sept. 9 – 11, 2020

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1. Gillespie, J. W. Jr., Series Editor, *Delaware Composites Design Encyclopedia*, Volumes 1–6, Technomic Publishing Company, Inc., Lancaster, PA, 1990.

Books and Book Chapters

1. Heider, D., J. W. Gillespie, Jr., S. Yarlagadda, J. Tierney, B. Haque, N. Shevchenko, S. Sharma, D. Roseman, A. Yiournas, and J. Sun (UD-CCM), A. Campbell, L. Keuthage, and D. Rinehardt (BMW), R. Myers (NCMS), National Center for Manufacturing Sciences, (2017, April*). High-Performance Computing Studies* (Report No. DOT HS 812 404). Washington, DC: National Highway Traffic Safety Administration. April 2017.
2. Deitzel, J., P. McDaniel, and J. W. Gillespie, Jr., Chapter 10: High Performance Polyethylene Fibers. In *Structure and Properties of High-Performance Fibers*; Bhat, G., Ed; Elsevier, https://doi.org/10.1016/B978-0-08-100550-7.00007-3 , pages 167, August 21, 2016.
3. Haque, B. A. (Gama), J. W. Gillespie, "A Quasi-Static Penetration Model of Ballistic Penetration of Thick-Section Composites," Failure in Composites – Volume 4, A. M. Waas and B. V. Sankar (eds.) (American Society for Composites Series on Advances in Composite Materials, DEStech Publications, ISBN: 978-1-60595-088-4, December 2012.
4. McAllister, Q. P., J. W. Gillespie, Jr., M. R. Vanlandingham, *Experimental Measurement of the Energy Dissipative Mechanisms of the Kevlar Micro-fibrillar Network for Multi-Scale Application*, Chapter 8, G. P. Tandon et al. (eds.), Experimental Mechanics of Composite, Hybrid, and Multifunctional Materials, Volume 6, Conference Proceedings of the Society for Experimental Mechanics Series, DOI 10.1007/978-3-319-00873-8_8, # The Society for Experimental Mechanics, Inc., 2014.
5. Xiao, J. R. and J. W. Gillespie, Jr., "Fracture Behaviors of Graphene Sheets and Carbon Nanotubes," accepted 'Graphene, Theory, Research and Applications, 10.5772/14948, Physics and Applications of Graphene – Theory, ISBN 978-953-307-152-7, March 2011.
6. Gillespie, J. W. Jr. and Hoa, S., Editors, Proceedings of the 24th Annual Technical Conference of the American Society for Composites, 2009.
7. Advani, S. G. and J. W. Gillespie, Jr., Editors, (Volume 9 in the TexComp Series) *Proceedings of TEXCOMP9: Recent Advances in Textile Composites*, 2008.
8. Gillespie, J. W. Jr., (contributing author and Chair), *High-Performance Structural Fibers for Advanced Polymer Matrix Composites*, National Materials Advisory Board, National Research Council, National Academy Press, Washington, DC, 2005.
9. Gillespie, J. W. Jr. (contributing author), "An Assessment of the U.S. Army's Manufacturing Technology Program Relative to the Needs of the Future Combat Systems Program in *Final Report of the Army's Future Combat Systems (FCS) Critical Technologies: Industry ManTech Independent Assessment Panel*, National Center for Advanced Technologies, Washington, D.C., Report Number 01-MT2A, July 2002.
10. Tierney, J. J., J. W. Gillespie Jr., and P-E. Bourban, "Joining of Composites," Chapter in Volume 2, *Polymer-Matrix Composites*, *Comprehensive Composite Materials*, Pergamon, Elsevier Science Limited, 2001.

11. Gillespie, J. W. Jr. (contributing author), "Composite Armored Vehicle Advanced Technology Demonstrator (CAV-ATD) Design Guide, United Defense, L. P. Ground Systems Division, Contract DAAE07-94-C-R011, August 1999.

12. Benatar, A., K. T. Kedward, and J. W. Gillespie, Jr., "Joining of Composites," Chapter 12 in *Advanced Composites Manufacturing,* Editor: T. G. Gutowski, John Wiley & Sons Publishers, pp. 487–512, 1997.

13. Gillespie, J. W. Jr., contributing author, *New Materials for Next-Generation Commercial Transports*, National Research Council, Publication NMAB-476, National Academy Press, Washington, DC, 1996.

14. Hansen, U. and J. W. Gillespie Jr., "Transverse Cracking of Composite Laminates with Interleaves: A Variational Approach," *Fracture of Composites*, E. Armanios (ed.), TransTec Publications, Ltd., Switzerland, pp. 521–548, 1996.

15. Advani, S. G. and J. W. Gillespie, Jr., Editors, *Proceedings of CADCOMP 92: Third International Conference on Computer Aided Design in Composite Material Technology*, 1992.

16. Carlsson, L. A., J. W. Gillespie Jr., and K. Friedrich, "Fracture of Thermoplastic Composites," *Thermoplastic Composite Materials*, L. A. Carlsson (volume ed.), Elsevier Book Series on Composite Materials, R. B. Pipes (series ed.) Elsevier Science Publishers, 1990.

17. Gillespie, J. W. Jr., and L. A. Carlsson, "Interlaminar Fracture of Composite Materials," Vol. 6, *Delaware Composites Design Encyclopedia*, Technomic Publishing Company, Inc., Lancaster, PA, 1990.

18. L. A. Carlsson, and J. W. Gillespie Jr., "Mode II Interlaminar Fracture," *Application of Fracture Mechanics to Composite Materials*, Volume Editor: K. Friedrich, Elsevier Book Series on Composite Materials, Series Editor: R. B. Pipes, Elsevier Science Publishers, 1989.

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Conference Publications (Also presented at Conferences)

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1. Fuessel, Lukas, Legenstein, A., Gillespie, Jr., J.W., Stretch Steering of Aligned Discontinous Fiber Tapes using Laser Tape Placement: Minimizing Placement Defects", American Society for Composite 39th Annual Technical Conference, October 21-23, 2024
2. Niknafs, Navid, Gillespie, Jr., John W., "Advances in Fiber Alignemnt Process for Highly Aligned Short Fiber Preforms for Thin Ply Composites", American Society for Composite 39th Annual Technical Conference, October 21-23, 2024
3. Lavaggi, Tania, Gillespie, Jr., J.W., Advani, S.G., "Evaluation of the Permeability of Carbon/Carbon Composites to Characterize the Pyrolysis and Re-Infiltration of the Carbon Precursor during Densification", American Society for Composite 39th Annual Technical Conference, October 21-23, 2024
4. Dewapriya, Nuwan, Chowdhury, S.C., Deitzel, J.M., Gillepie, Jr., John W., "Molecular Dynamics Prediction of Strain Rate-Induced Failure Mode Transitions in Crystalline Polyethylene", American Society for Composite 39th Annual Technical Conference, October 21-23, 2024
5. Cender, Thomas A., Simacek, P., Gillespie, Jr., J.W., Advani, S.G., "Extensional Viscosity and Microstructural Evolution of Highly Aligned discontinuous Fiber Composites in Forming", American Society for Composite 39th Annual Technical Conference, October 21-23, 2024
6. Dason, Paul, Doshi, S.M., Yiournas, A., Gillespie, Jr., John W., "Experimental Measurement of Mode-I and Mode-II Traction Seperation Laws for Delamination in Plain-Weave Glass Epoxy Composites", American Society for Composite 39th Annual Technical Conference, October 21-23, 2024
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105. Gillespie, J. W. Jr., R. L. McCullough, B. J. Waibel, J. J. Garrett and J. J. Quigley IV, "Micromechanics Model for Composite Materials: Thermal and Electrical Conductivities," CCM Software Users Guide, 1984.

106. Wilson, D. W., J. W. Gillespie Jr., J. L. York, and R. B. Pipes, "Failure Analysis of Composite Bolted Joints," CCM Technical Report 80-16, 1980.

107. Gillespie, J. W. Jr., "Thermal Response of the Cylindrically Material Properties," CCM Technical Report 79-20, 1979.

108. Gillespie, J. W. Jr. and R. B. Pipes, "Axisymmetric Analysis of the Cylindrically Orthotropic Disk of Variable Fiber Orientation," CCM Technical Report 79-10, 1979.

109. Taggart, D. G., R. B. Pipes, R. A. Blake, Jr., J. W. Gillespie Jr., R. Prabhakaran, and J. M. Whitney, "Properties of SMC Composites," CCM Technical Report 79-01, 1979.

Presentations

Invited Presentations

1. Chowdhury, S.C., "Rate-Dependent Mixed-Mode Traction Law for Glass Fiber-Epoxy Interphase Developed using Molecular Simulations", Multiscale Materials Modeling International (MMM10) Conference, Baltimore, MD, October 2-7, 2022
2. Meyer, C., B. (Gama) Haque, D. O'Brien, and J. W. Gillespie, Jr., "Predicting the Residual Velocities for Continuum Plain-Weave Composite Plate Model Under Projectile Impact," EMI2019, Engineering Mechanics Institute Conference 2019, Caltech, Pasadena, CA, June 18-21, 2019.
3. Sockalingam, S., S. Chowdhury, and J. W. Gillespie, Jr., "Inter-Fibrillar Interactions in Polyethylene Ballistic Fibers at the Atomic Scale," Mach 2019 Conference, Annapolis, MD, April 3-5, 20019.
4. Chowdhury, S.C. and J. W. Gillespie, Jr., "Molecular Modeling of Silica-Silane-Epoxy Interphase," Mach 2019 Conference, Annapolis, MD, April 3-5, 2019.
5. Yeon, Jejoon and J. W. Gillespie, Jr., "Atomistic Scale Simulation for the Inter-Diffusion of Epon828/Epon1001F and Jeffamine/PACM-20," Mach 2019 Conference, Annapolis, MD, April 3-5, 2019.
6. Casem, D., T. Weerasooriya, S. Sockalingam, and J. W. Gillespie, Jr., "Influence of High Strain Transverse Compression on the Tensile Strength of Ultrahigh Molecular Weight Polyethylene Ballistic Single Fibers," 2018 Mach Conference, Johns Hopkins University, Baltimore, MD, April 4-6, 2018.
7. Sockalingam, S., Preston McDaniel, and J. W. Gillespie, Jr., University of Delaware; D. Casem and T. Weerasooriya, US Army Research Lab., Aberdeen MD, "High Strain Rate Transverse Compression Response of Ballistic Fibers," 2017 Mach Conference, Johns Hopkins University, Baltimore, MD, April 5 – 7, 2017.
8. Gillespie, Jr., J. W., "Dynamic Fracture of Unidirectional Composites," Exxon-Mobil Research Lab, July 2017.
9. Chowdhury, S., R. M. Elder, T. W. Sirk, and J. W. Gillespie, Jr., "Molecular Modeling of Glass Fiber Sizing Interphase Layer," MACH Conference, Annapolis, MD, April 5-7, 2017.
10. Bonyi, E., C. Lansiquot, B. Kioko, O Adesina, C. S. Meyer, D. J. O'Brien, B. Z. (Gama) Haque, J. W. Gillespie, Jr., and Kadir Aslan, "Assessment and Quantification of Ballistic Damage of a Plain-weave S-2 Glass Epoxy Composite," 2017 Mach Conference, Johns Hopkins University, Baltimore, MD, April 5 – 7, 2017.
11. Gillespie, Jr., J. W., "Multiscale Response of Unidirectional Composite Materials," Enterprise for Multiscale Research of Materials (EMRM), Guest Lecture Series, Army Research Laboratory, Aberdeen, MD, November 18, 2016.
12. Gillespie, Jr., J. W., "Thermoplastic Composites for Automotive Applications" – "High Performance Computing Intensive Vehicle Design", Keynote address American Society for Testing and Materials, September 22, 2016.

13. Yeager, M., R. Ganesh, S. Yarlagadda, S. G. Advani, and J. W. Gillespie, Jr., "A Unit Cell Model to Predict Impact of Geometric and Processing Parameters on Energy Absorbed by Fiber Composites." Mach conference, 2015, Annapolis, MD, April 8-10, 2015.
14. Gillespie, Jr., J. W., "Automated OOA Process of High-Performance Thermoplastics Composites for Aerospace Structures," AIRTEC 2015 Congress AERONAUTICS, Munich, Germany, Oct 2015
15. Gillespie, Jr., J. W., "Composites Manufacturing Science", Purdue University, May 29-30, 2013.
16. Gillespie, Jr., J. W., Academic Panel: Unique Collaborations in Academia, 3rd Persh Conference, Workforce Development Meeting Material Science and Engineering Needs for the 21st Century, Arlington, VA, October 26-28, 2010.
17. Gillespie, Jr., J. W., Integrated Structural Armor: Government and University Perspectives, Association of the United States Army, Washington, D.C., October 5, 2009.
18. Gillespie, Jr., J. W., TexEng Software Ltd., Second World Conference on 3D Fabrics and Their Applications, Greenville, SC, April 6-7, 2009.
19. Gillespie, J. W., Jr., "Multifunctional Materials and Structures," Multi-Scale Materials Behavior in Ultra-High Loading Rate Environments Workshop, Towson, Maryland, September 22-24, 2008.
20. Gillespie, J. W., Jr., Keynote Speaker, "Influence of Fiber Surface Texture on Strength and Energy Absorption," 13th US-Japan Conference on Composite Materials, Nihon University, Tokyo, Japan, June 6-7, 2008.
21. Gillespie, J. W. Jr., Keynote Speaker "First World Conference on 3D Fabrics and Their Applications," University of Manchester, UK, April 10-11, 2008.
22. Panelist, "Creating Knowledge-Based Partnerships: Challenges and Opportunities"; Advanced Materials, Clayton Hall, U of D, November 2, 2007
23. Gillespie, J. W., Jr., "Accelerated Insertion of Materials: Partnerships, Design and Simulation," U.S. Army Materials Summit, Gettysburg, PA, March 13-16, 2006.
24. Gillespie, J. W., Jr., "Structural Armor," U.S. Army Materials Summit, Eisenhower Hotels, Conference Center & Resort, Gettysburg, PA, March 13-16, 2006.
25. "Armor Attachment Design for Mission Tailorable Space Frame Vehicles (MTSV)", 17th Annual Ground Vehicle Survivability Symposium (2006 GVSS), Northrop Grumman Space Technology Presentation Center (STPC), Redondo Beach, CA March 27-30, 2006.
26. Gillespie, J. W., Jr., "International Experts Workshop on the Future of Marine Structures and Materials – A 30 Year Vision," University of Southampton, UK, November 16-18, 2005.
27. Gillespie, J. W., Jr., S. M. Andersen, "Accelerated Insertion of Lightweight Materials into Military Vehicles," 3rd Annual Lightweight Materials for Defense, February 2005, Washington, DC.
28. Ren, L., M. Larson, B. A. Gama, J. W. Gillespie, Jr., "Wave Dispersion in Cylindrical Tubes: Applications to Hopkinson Pressure Bar Experimental Techniques," University of Maryland, Advanced Metals and Intelligent Processing, March 26, 2004.
29. Gama, B. A., Md. J. Haque, J. W. Gillespie Jr. and A. E. Bogdanovich, "Modeling the Dynamic Deformation and Damage of 3-D Woven Fabric Composites," 16th U.S. Army Symposium on Solid Mechanics, May 4-7, 2003, in Charleston, SC.

30. Gama, B. A., B. Chottopadhyay, Md. J. Haque and J. W. Gillespie Jr., "Damage Mechanisms and Energy Absorption of Plain Weave S-2 Glass/ SC-15 Composites under Quasi-Static Punch-Shear and Low Velocity Impact Loading," Paper presented in the 'Impact on Composites 2002' symposium, 14th U. S. National Congress of Theoretical and Applied Mechanics, June 23-28, 2002, Blacksburg, VA.

31. Gama, B. A., B. Chottopadhyay, Md. J. Haque, and J. W. Gillespie Jr., "Initiation and Propagation of Delamination in Thick-Section Composites under Dynamic Loading," Paper presented in the 'Impact on Composites 2002' Symposium, 14th U. S. National Congress of Theoretical and Applied Mechanics, June 23-28, 2002, Blacksburg, VA.

32. Defense Manufacturing Conference 2001, Technical Speaker, Las Vegas, NV, November 26-29, 2001.

33. Fink, B., J. M. Sands, S. H. McKnight, J. W. Gillespie, Jr., “Non-polluting Composites Repair and Remanufacture for Military Applications,” SERDP Conference, November 2001.

34. Industry and Academia Perspective on Defense Partnering, Panelist, Tech Trends 2001, Atlantic City, NJ, April 18, 2001.

35. Partnering for Success, Panelist, Tech Trends 2001, Atlantic City, NJ, April 18, 2001.

36. Research and Innovations for the 21st Century, Panelist, Tech Trends 2001, Atlantic City, NJ, April 18, 2001.

37. Walsh, S. M., E. J. Rigas, W. A. Spurgeon, W. N. Roy, D. Heider, and J. W. Gillespie Jr., “Integrated Product and Process Design for Affordable Composite Structures: A University Perspective,”

38. “Simulation, Sensing and Control of the Vacuum Assisted Resin Transfer Molding Process,” invited seminar at Louisiana State University, April 28, 2000.

39. “Success Stories and Lessons Learned: Composites as Advanced Construction Materials, Nonautoclave Processing of Thermoplastic Composites, and VARTM Automation, Sensing, and Control,” invited presentation, Composites Manufacturing and Tooling 2000, Newport Beach, CA, February 23-25, 2000.

40. “Characterization of the Fiber-Matrix Interphase in Composite Materials,” University of Nevada–Las Vegas, December 9, 1999.

41. Gillespie, J. W. Jr., “Co-Injection Resin Transfer Molding,” *Intelligent Design and Manufacturing Tools for Affordable Military Product Development*, Stevens Institute of Technology, Hoboken, NJ, October 14–15, 1998.

42. Gillespie, J. W. Jr., and R. F. Eduljee, “ACP/University Research Effort (URE): Highlights of University of Delaware Research Activities,” Affordable Composites for Propulsion Workshop, sponsored by Pratt–Whitney, University of California–Santa Barbara, September 15, 1998.

43. Gillespie, J. W. Jr., “Processing and Performance of Co-Injected Multi-Layer Hybrid Composite Parts,” University College Galway, Ireland, June 10, 1998.

44. Gillespie, J. W. Jr., “Diffusion of Reacting Thermosets into Thermoplastic Polymers,” University of Limerick, Ireland, June 11, 1998.

45. Gillespie, J. W. Jr. and S. H. McKnight, “Interdiffusion of Reacting Thermosets into Thermoplastics,” presented at the Twenty-First Asilomar Conference on Polymeric Materials, Pacific Grove, CA, February 22–25, 1998.

46. Gillespie, J. W. Jr., “Integral Armor Optimization,” U.S. Army TARDEC, Warren, MI, November 1997.

47. Gillespie, J. W. Jr., “Processing and Performance of Integral Armor,” Winona State University, October 21, 1997.

48. Gillespie, J. W. Jr., “Durability and Shear Distortion of AS4/PR500 Composites for Engine Applications,” Pratt Whitney, West Palm Beach, FL, February 12, 1997.

49. Gillespie, J. W. Jr., “Effects-of-Defects Criteria for the Composite Armored Vehicle,” United Defense Limited Partnership, November 1996.

50. Gillespie, J. W. Jr., “Effects-of-Defects in Fan Containment Case,” Pratt & Whitney, December 1996.

51. Gillespie, J. W. Jr., “Academic R&D Review—Highlights of Research Activities at the University of Delaware Center for Composite Materials,” Composite Materials Handbook (MIL-HDBK-17) Coordination Meeting, Schaumberg, IL, September 9, 1996.

52. Gillespie, J. W. Jr., “Bridge Rehabilitation—Advanced Composite Materials,” National Research Council Transportation Research Board, National Academy of Science, Irvine, CA, September 29, 1995.

53. Gillespie, J. W. Jr., M. A. Lamontia, and K.V. Steiner, “The Effects of Voids and Waviness on PMC Mechanical Properties,” invited lecture, Gordon Research Conference, Ventura, CA, January 7–11, 1996.

54. Gillespie, J. W. Jr., “Process Modeling for Advanced Tow Placement of Thermoplastic Composites,” Gordon Research Conference on Composite Materials, Ventura, CA, January 1994.

55. Gillespie, J. W. Jr., “Design Methodology for Short Fiber Reinforced Composite Structures,” Gordon Research Conference on Composite Materials, Ventura, CA, January 1988.

56. Gillespie, J. W. Jr., “Benchmarking CAV Candidate Composite Processing for Six Sigma Methodologies,” CAV-ADT PDT Meeting, Warren, MI, December 1994.

57. Gillespie, J. W. Jr., “Briefing on Rapid Placement Technology for Polymer-Matrix Composites,” CAV–ADT PDT Meeting, Warren, MI, December 1994.

58. Gillespie, J. W. Jr., “Diffusion-Enhanced Adhesive Bonding for Joining S2-PPS Components,” CAV–ADT PDT Meeting, Warren, MI, December 1994.

59. Gillespie, J. W. Jr., “Impact of Affordability Exit Criteria on CAV–ATD,” CAV–ADT PDT Meeting, Warren, MI, December 1994.

60. Gillespie, J. W. Jr., “Composites Joining,” United Technologies Advanced Studies Program, October 1994.

61. Gillespie, J. W. Jr., “Rehabilitation of Steel Infrastructure Using Composites,” Department of Mechanical Engineering,” Concordia University, Montreal, CA, November 24, 1994.

62. Gillespie, J. W. Jr., “Environmental Durability and Life Prediction of Polymer Matrix Composites,” United Technologies Research Center, December 9, 1994.

63. Gillespie, J. W. Jr., “Overview of HSCT Related Composites Research at the University of Delaware,” 7th HSCT Mechanics and Durability of Materials Working Group Meeting,” Seattle, WA, September 22–24, 1993.

64. Gillespie, J. W. Jr., and R. L. McCullough, "Thermoplastic Composites: The UD–CCM Perspective," ARPA Workshop on Thermoplastic Matrix Composites, San Diego, CA, July 22, 1993.

65. Gillespie, J. W. Jr., "Characterization of Microcracking in Polymeric Composites," 6th HSCT Mechanics and Durability of Materials Working Group Meeting," NASA Langley Research Center, Hampton, VA, March 2–4, 1993.

66. Gillespie, J. W. Jr., "Low-Cost Manufacturing of High-Performance Composites via Robotic Fiber Placement: Modeling and Simulation for Control and Process Optimization," Philadelphia SAMPE Chapter Meeting, March 11, 1993.

67. Gillespie, J. W. Jr., "The Influence of Ply Waviness with Nonlinear Shear on the Stiffness and Strength Reduction of Composite Laminates," Joint SES/ASME Symposium: Mechanics of Composite Materials—Nonlinear Effects, Volume of the Applied Mechanics Division of ASME, First SES-ASME-ASCE Joint Meeting, Charlottesville, VA, June 6–9, 1993.

68. Gillespie, J. W. Jr., "Factors Influencing the Compression Performance of Filament-Wound Composite Structures," High-Capacity Artillery Projectile (HICAP) Advance Planning Briefing for Industry, Aberdeen Proving Grounds, MD, July 8, 1992.

69. Gillespie, J. W. Jr., "Composites for Generators," 1992 Interagency Advanced Power Group 1992 Spring Symposium, Alexandria, VA, March 31–April 2, 1992.

70. Gillespie, J. W. Jr., "Effect of Thermal History on the Long-Term Behavior of High-Performance Composites," Fatigue and Fracture Branch, NASA Langley Research Center, Hampton, VA, February 7, 1992.

71. Gillespie, J. W. Jr., "The Influence of Material, Geometric and Processing Variables on Residual Stresses and Performance of Thermoplastic Composites," Annual Meeting of the Society of Experimental Mechanics, June 1992.

72. Gillespie, J. W. Jr., "Influence of Microstructure on the Residual Stress Development in Short Fiber Composites," Himont, Wilmington, DE, June 11, 1991.

73. Gillespie, J. W. Jr., "Influence of Layer Waviness on Stiffness and Strength of Fiber Reinforced Composite Laminates," Fiber Producer Conference 1991, Clemson University, Clemson, SC, May 6–9, 1991.

74. Gillespie, J. W. Jr., "Joining of Thermoplastic Composites," McDonnell Douglas, St. Louis, MO, April 19, 1991.

75. Gillespie, J. W. Jr., "Influence of Layer Waviness on Performance of Pressure Hulls," Advanced Materials Engineering Centre, Halifax, Nova Scotia, Canada, November 29, 1990.

76. Gillespie, J. W. Jr., "Manufacture and Performance of Resistance Welded Thermoplastic Skin-Core Structures," ALCOA Technical Center, ALCOA Center, PA, September 28, 1990.

77. Gillespie, J. W. Jr., "Process-Induced Stress and Deformation in Thick-Section Thermosetting Composites," United Technologies Research Center, East Hartford, CT, August 31, 1990.

78. Gillespie, J. W. Jr., R. F. Eduljee, and R. L. McCullough, "On the Application of Micromechanics to Predict Macroscopic Residual Thermal Stress During Injection Molding of Composites," NRCC/IMRI Composites–90, Montreal, Canada, October 1990.

79. Gillespie, J. W. Jr., "Damage Tolerance of Composite Structures: The Role of Interlaminar Fracture Mechanics," Thirteenth Asilomar Conference on Polymeric Materials, Pacific Grove, CA, January 30–February 2, 1990 (unable to attend due to illness in family).

80. Gillespie, J. W. Jr., R. L. McCullough, and T. A. Bogetti "Influence of Processing on the Development of Residual Stresses in Thick Section Thermoset Composites," U. S. Army Sagamore Conference on Thick Composites, Plymouth, MA, October 23–26, 1989.

81. Gillespie, J. W. Jr., "Influence of Stacking Sequence on Composite Damping," U.S. Navy Advanced Damping Materials Workshop, Annapolis, MD, October 12, 1989.

82. Gillespie, J. W. Jr., "Residual Stress in Autoclave Cured Thick Sections," Third Annual Thick Composites in Compression Workshop, Knoxville, TN, July 11–12, 1989.

83. Gillespie, J. W. Jr., "Processing of Polymeric Matrix Composites," Army Symposium on Solid Mechanics: Mechanic of Engineered Materials and Applications, Newport, RI, May 16–18, 1989.

84. Gillespie, J. W. Jr., "Composites Education in the United States," 1988 SACMA Fall Conference, San Diego, CA, November 1988.

85. Gillespie, J. W. Jr., "Numerical and Experimental Evaluation of the Mode III Interlaminar Fracture Toughness of Composite Materials," National Research Council Canada IMRI Symposium Series: "Composites–'88," Boucherville, Quebec, November 1988.

86. Gillespie, J. W. Jr., "Workshop on Failure Theories of Thick Section Composites," Ballistics Research Laboratory, Aberdeen Proving Grounds, Aberdeen, MD, July 1988.

87. Gillespie, J. W. Jr., "Maximum Load Transfer Through Composite Material Grooves," Sabot Technology Workshop, Ballistics Research Laboratory, Aberdeen Proving Grounds, Aberdeen, MD, June 1987.

88. Gillespie, J. W. Jr., "Instability Related Delamination Growth in Composite Laminates," Civil Engineering Seminar, University of Delaware, Newark, DE, 1986.

Other Presentations

1. Guy[1], J., E. Bonyi[1], B. Kioko[1], C. Adesina[1], T. Obafemi-Babatunde[1], C. Meyer[2,3], D. J. O'Brien[2], B. Z. (Gama) Haque[3], J. W., Gillespie, Jr.[3], and K. Aslan[1]; [1]Morgan State University, Department of Civil Engineering, Baltimore, MD; [2]US Army Research Laboratory, Weapons and Materials Research Directorate, Aberdeen Proving Ground, MD; [3]University of Delaware Center for Composite Materials, Newark DE.

2. Kubota, M., J. Deitzel, S. Sauerbrunn, and J. W. Gillespie, Jr., "Functionalization of Pan-Based Carbon Fiber for Improved Wetting and Interfacial Shear Strength," University of Delaware, Clayton Hall, Newark, DE, August 7-10, 2017.

3. Heider, D., J. Dossman, J. J. Tierney, S. Yarlagadda, and J. W. Gillespie, Jr. (CCM, University of Delaware), L. Keuthage, A. Campbell, and D. Rinehardt (BMW AG, Germany), "Fabrication of a Crashworthy Lightweight Thermoplastic Carbon Fiber B-Pillar," CAMX 2017, Orange County Convention Center, Orlando, FL, Sept. 11-14, 2017.

4. Tierney, J. J., B. Haque, D. Heider, S. Yarlagadda, and J. W. Gillespie, Jr. (CCM, University of Delaware), L. Keuthage, A. Campbell, and D. Rinehardt (BMW AG, Germany), "Design and Optimization of a Crashworthy Lightweight Thermoplastic Carbon Fiber B-Pillar," CAMX 2017, Orange County Convention Center, Orlando, FL, Sept. 11-14, 2017.

5. Tanoglu, M. and J. W. Gillespie Jr., "Characterization of the Fiber/Matrix Interphase under High-Strain Rates," presented at IPCM 99: Interfacial Phenomena in Composite Materials, September 8–10, 1999, Berlin, Germany.

6. Sands, J. M., B. K. Fink, and J. W. Gillespie Jr., "Sensor System Integration for Processing and Life-Cycle Monitoring of Composites for Military Systems," ASME Congress, November 15–20, 1998.

7. Xiao, J. Q., S. Yarlagadda, J. W. Gillespie Jr., and B. K. Fink, "Effects of Particle Size and Distribution on Electromagnetic Heating of Ferromagnetic Particle Filled Polymers," presented at the Materials Research Society Meeting, Boston, December 1997.

8. Heider, D. and J. W. Gillespie Jr., "Adaptive Control for the Tow Placement System," presented at the Symposium on Affordable Composites Processing, 1997 ASME International Mechanical Engineering Congress and Exposition (IMECE), Dallas, TX, November 16-21, 1997.

9. Fink, B. K., S. Yarlagadda, and J. W. Gillespie Jr., "Induction Bonding of Composites Using Resistive Susceptors," presented at the Symposium on Affordable Composites Processing, 1997 ASME International Mechanical Engineering Congress and Exposition (IMECE), Dallas, TX, November 16-21, 1997.

10. Gillio, E. F., S. G. Advani, R. F. Eduljee, B. K. Fink, K. R. Bernetich, and J. W. Gillespie Jr., "Characterization of a Co-Injected Vinyl-ester/Phenolic Interphase," presented at the Symposium on Affordable Composites Processing, 1997 ASME International Mechanical Engineering Congress and Exposition (IMECE), Dallas, TX, November 16-21, 1997.

11. Thomas, G. E. and J. W. Gillespie Jr., "The Application of Six-Sigma Analysis to the Composite Armored Vehicle," Defense Manufacturing Conference 95, Dallas, TX, November 1995.

12. Fink, B. K. and J. W. Gillespie Jr. "Army Research Laboratory Collaborative Research in Resin Transfer Molding," Defense Manufacturing Conference 95, Dallas, TX, November 1995.

13. Hoppel, C. P. R., T. A. Bogetti, and J. W. Gillespie Jr. “Design and Analysis of Composite Wraps for Rehabilitation of Concrete Columns,” presented at the American Society for Composites Ninth Technical Conference, Newark, DE, September 20–22, 1994 (also CCM Technical Report 95-15).

14. McKnight, S. H., and J. W. Gillespie Jr. “Silane Coupling Agents as Adhesion Promoters in Metal-to-Composite Bonds,” presented at the American Society for Composites Ninth Technical Conference, Newark, DE, September 20–22, 1994.

15. McKnight, S. H., P. E. Bourban, and J. W. Gillespie Jr. “Durability of Composite-to-Steel Bonds for Steel Rehabilitation,” presented at the American Society for Composites Ninth Technical Conference, Newark, DE, September 20–22, 1994.

16. Don, R. C., and J. W. Gillespie Jr. “Integrated Process Models for Simulation and Control of Thermoplastic Fiber Placement,” presented at the American Society for Composites Ninth Technical Conference, Newark, DE, September 20–22, 1994.

17. Pitchumani, R. and J. W. Gillespie Jr. “Effects of Processing Conditions on On-line Consolidation and Void Content during Thermoplastic Fiber Placement,” presented at the American Society for Composites Ninth Technical Conference, Newark, DE, September 20–22, 1994.

18. Tackitt, K. D. and J. W. Gillespie Jr. “A Model of the Temperature Dependence of Sound Transmission through Layered Structures,” presented at the American Society for Composites Ninth Technical Conference, Newark, DE, September 20–22, 1994.

19. Huang, X. G. and J. W. Gillespie Jr. “Mechanics of Discontinuous-Ceramic-Cored-Sandwich Structures for Composites Armored Vehicle Applications,” presented at the American Society for Composites Ninth Technical Conference, September 20–22, 1994.

20. Hansen, U. and J. W. Gillespie Jr. “Predictions of Transverse Cracking in Cross-Ply Laminates with Resin-Rich Interlayers: A Variational Approach,” presented at the American Society for Composites Ninth Technical Conference, Newark, DE, September 20–22, 1994.

21. Huang, X. G., R. F. Eduljee, and J. W. Gillespie Jr., “Effect of Laminate Stacking Sequence and Ply–Group Thickness on the Microcracking Behavior of Bismaleimide Composite Laminates, presented at the American Society for Composites Ninth Technical Conference, Newark, DE, September 20-22, 1994.

22. Fecko, D. L., K. V. Steiner, and J. W. Gillespie Jr. “An Analysis of Ultrasonic NDE Methods for the In-Process Inspection of In-situ Consolidated Thermoplastic Composites,” presented at the American Society for Composites Ninth Technical Conference, Newark, DE, September 20–22, 1994.

23. Fecko, D. L., K. V. Steiner, and J. W. Gillespie Jr. “Acousto-Ultrasonic Inspection of Pultruded Composites,” 1993 University-Industry Research Symposium, University of Delaware, Newark, DE, September 29–30, 1993.

24. Gillespie, J. W. Jr., “Research Issues on Rapid Fiber Placement of Thermoplastic Composites,” Tenth Thermoplastic Matrix and Low-Cost Composites Review,” La Jolla, San Diego, CA, February 9–11, 1993.

25. Andersen, S. M., J. W. Gillespie Jr., K. Newman, M. A. Lamontia and B. Olson, “Design, Analysis and Hydrotesting of a Composite Cylinder Joint for Pressure-Hull Applications,” ASTM STP on Compression Response of Composite Structures, November 1992 (selected as Best Presentation).

26. Gillespie, J. W. Jr., "Influence of Ply Waviness on Stiffness and Strength Reduction in Composite Laminates," Seventeenth Annual Mechanics of Composites Review, Materials Directorate of the Wright Laboratory, Wright-Patterson Air Force Base, OH, October 27–28, 1992.

27. Gillespie, J. W. Jr., "Composite Submarine Structures: Research Issues," Office of Naval Research, Crystal City, VA, March 20, 1992.

28. Gillespie, J. W. Jr., "Joint Demonstrator and Subcomponent Test Program," Critical Design Review–Composite Hull Program, November 14, 1991.

29. Gillespie, J. W. Jr., "Joint Feature Design and Analysis," Preliminary Design Review for Graphite Composite Pressure Hull Program, July 26, 1991.

30. Gillespie, J. W. Jr., "Joining and Subcomponent Test Program," Critical Design Review for Composite Hull Mandrels, October 18, 1991.

31. Gillespie, J. W. Jr., "Design, Analysis and Hydrotesting of a Composite Cylinder Joint for Pressure-Hull Applications," ASTM Symposium on Compression Response of Composite Structures, November 16–17, 1992.

32. Gillespie, J. W. Jr., "Performance of In-situ Filament Wound Graphite/Thermoplastic Composite Ring Stiffened Pressure Hulls," ASTM Symposium on Compression Response of Composite Structures, November 16–17, 1992.

33. Research Center, Naval Civil Engineering Laboratory and The Vibration Institute, April Gillespie, J. W. Jr., "Influence of Ply Waviness and Residual Stress on Hydrostatic Collapse Pressure of Filament Wound Composite Cylinders," 45th Meeting of the Mechanical Failures Prevention Group, Sponsored by Office of Naval Research, David Taylor 1991.

34. Gillespie, J. W. Jr., "Manufacture and Performance of Resistance Welded Graphite Reinforced Thermoplastic Composite Structural Elements," Society of Manufacturing Engineers, October 9–11, 1990.

35. Crane, R. M. and J. W. Gillespie Jr. "Effect of Vibration Amplitude on the Vibration Damping Loss Factor of Glass and Graphite Epoxy Composites," Sixth Annual ASM/ESD Advanced Composites Conference, Composites for Noise and Vibration Control, Detroit, MI, October 8–11, 1990.

36. Gillespie, J. W. Jr., "Effects of Defects on Cylinder Performance," Fourth Annual Thick Composites in Compression Workshop, Knoxville, TN, June 26, 1990.

37. Advani, S. G., R. Shanker, J. W. Gillespie Jr., and S. I. Güçeri, "Non-homogeneous Flow Field Effects in Injection Molding of Fiber Suspensions," Conference of the Polymer Processing Society, Nice, France, 1990.

38. Gillespie, J. W. Jr., "Damage Tolerance of Composite Structures: The Role of Interlaminar Fracture Mechanics," 1990 Conference of the ASME Offshore Mechanics and Arctic Engineering Division," Houston, TX, February 18–23, 1990.

39. Gillespie, J. W. Jr., "Impact of Interactive Videodisc Courseware on Composites Education," 1989 ASEE Annual Conference, University of Nebraska, Lincoln, NE, June 1989.

40. Gillespie, J. W. Jr., "Impact of Interactive Videodisc Courseware on Composites Education," Create Advance on Computer-Based Learning, Academic Computing and Instructional Technology, University of Delaware, Newark, DE, February 1989.

41. Gillespie, J. W. Jr., “Application of Composite Materials to Business Equipment: A Case Study,” ASM Materials Week, Cincinnati, OH, 1987.

42. Gillespie, J. W. Jr., “Design Methodology for Short Fiber Reinforced Materials,” ASM Materials Week, Cincinnati, OH, 1987.

43. Gillespie, J. W. Jr., “Computer Aided Design of Composite Components,” ASM Materials Week ’86, Orlando, FL, 1986.

44. Gillespie, J. W. Jr., “Delamination Growth in Composite Laminates,” 1985 Grant and Contract Review, Fatigue and Fracture Branch, NASA Langley Research Center, Hampton, VA, 1985.

45. Gillespie, J. W. Jr., “Thermoelastic Response of the Cylindrically Orthotropic Disk,” ASTM Symposium: High Modulus Fiber Composites in Ground Transportation and High-Volume Applications, Pittsburgh, PA, 1983.

46. Gillespie, J. W. Jr., “Compressive Strength of Composite Laminates with Interlaminar Defects,” Symposium on NDE of Criticality of Defects in Composites Laminates, Valley Forge, PA, NADC-84041-60, 1983.

47. Gillespie, J. W. Jr., “Evaluation of the Embedded Spar Composite Design Concept,” 1978 International Conference on Composite Materials, Toronto, Canada, 1978.

Service

University of Delaware

Professor, Department of Electrical and Computer Engineering, January 2019

Member, Board of Advisors, Tau Beta Pi, Delaware Alpha Chapter, 2017-2020.

Member, Mentors Committee (Zubaer Hossain), 2017-present.

Member, Awards Committee, 2017-2018

Member, Committee for Director for Additive Manufacturing, 2016

Member, UD Interdisciplinary Manufacturing Program, 2016

Member, Committee for UD Energy Institute, 2016

Member, Institute of Energy Conversion Working Group, 2016

Member, University Research Council, 2014-2015

Member, ME Alumni Relations Planning Team, 2013

Professor, Department of Mechanical Engineering, 2013

Member, Dean's Search Committee, 2012-2013

Member, College of Engineering Financial Levers Taskforce, 2012

Member, College of Engineering Faculty Senate, 2011-2012, 2012-2013, 2013-2014, and 2014-2015

Member, Chief Financial Officer Search Committee, 2010

Member, Deans' Cluster Search Committee on National Security, 2010.

Member, Dean's Cluster Search Committee on Composites, 2010.

Member, Organizing Committee for the Second Joint American – Canadian Conference on Composites - 2011

Member, Committee of Named Professors on Classified Research, July 2009

Member, Classified Research Task Force, June 2009

Member, Dean's Chair's Advisory Committee (DCAC), July 2008 - Present

Member, College of Engineering Strategic Planning Committee, July – Present

Member, Research Council, May 2008 - Present

Member, Dean's Search Committee, 2007-08

Director, Center for Composite Materials, 1996 – Present

Chair of the College Promotion and Tenure Committee, 2007 - 2009

Member, CEE Faculty Search Committee, 2006

Member, College P&T Committee, 2006-07

Coordinator, Science & Engineering Scholars Program Center for Composite Materials, 1982–Present

Member, Civil & Environmental Engineering Advisory Committee, 2001 – Present

Member, College of Engineering Dean's Advisory Committee, 2000 – Present

Department of Materials Science & Engineering representative, Educational Activities Committee, 1998 –Present

Member, Responsible Conduct of Research (RCR) Council, Office of Vice Provost, 2005

Member, Department of Civil & Environmental Engineering Undergraduate Committee, 2003-2004

Member, *ad hoc* Committee, Independent Review of Department Chair (Materials Science and Engineering), 2003

Member, College of Engineering Promotion and Tenure Committee, 1999 – 2003

Member, Search Committee, Director, Delaware Transportation Institute, 1999

Member, Technical and Scientific Advisory Group (TSAG), Delaware Transportation Institute, 1998 – 1999

Member, Search Committee, College of Engineering Dean's position, 1998 – 1999

Member, Department of Civil & Environmental Engineering Undergraduate Recruitment and Scholarship Committee, 1998–1999

Member, ABET Implementation Committee/Subcommittee on Civil Engineering, 1998 – 1999

ABET Review Committee, Department of Civil and Environmental Engineering, 1997–1998

Graduate Student Academic Advisor, Department of Materials Science and Engineering, 1997–1998

Member of the Center for Composite Materials Executive Advisory Board, 1995–1998

Chair, Administrator of Intellectual Property Search Committee, University of Delaware Office of the Vice Provost for Research, 1996

Member, Project Manager Search Committee, University of Delaware Office of the Vice Provost for Research, 1996

Associate Director, Center for Composite Materials, 1990–1996

Member, College of Engineering Dissertation Committee and Search Committees

Member Dissertation Committee:

Erich Weigert
Dan Su

Member, Tau Beta Pi - 1976

External

Co-Chair, SPE Automotive Composites Conference & Exhibition, Novi, MI, Sept. 7-9, 2022

External Review Board (ERB) member of The Louisiana Materials Design Alliance (LAMDA), 2021

Member, Thermoplastic Composites Conference 2020

Member, International Scientific Committee, ICCM 23, Belfast Ireland August 1-6, 2021

Member, Mach Scientific Committee, 2020

Member, Technical Program committee of 35th ASC Conference on Digital Materials Design and Additive Manufacturing, Feb 29, 2020

Session Co-Chair, From Atoms to Armor: multiaxial dynamic impact mechanics of ballistic fibers and composites, MACH 2019 Conference, Annapolis, MD, April 3-5, 2019.

Session Co-Chair, Modeling and Characterization of Fiber-Matrix Interphase, MACH 2019 Conference, Annapolis, MD, April 3-5, 2019.

Member, International Advisory Body, International Conference on Processing and Characterization of Materials (ICPCM-2018), December 6-8, 2018 at NIT Rourkela.

Member, Consortium Management Committee for Materials for Extreme Dynamic Environment 2013 - Present

Member, Mach Scientific Committee, 2017

Member, Science Advisory Board, Mach Conference, 2016

Member, Board of Directors of the Composites Division of SPE, 2015 -

Session Chair, “Micro-scale models of polymers and composites”, Mach Conference, Annapolis, MD, April 8-10, 2015.

Member, Science Advisory Board, Mach Conference, 2015

Chair of the International Advisory Board for the Sixth World Conference on 3D Fabrics and Their Applications, North Carolina State University, Raleigh, NC, May 26-27, 2015.

Member, Science Advisory Board, Mach Conference, 2014

Member, Editorial Board of Fibers, 2013

Member, Science Advisory Board, Mach Conference, 2013

Member of Advisory Group for the Mayor’s Manufacturing Task Force on Evaluation of the State of Manufacturing, Philadelphia Industrial Development Corporation, 2013.

Member of Advanced Manufacturing Innovation and Skills Accelerator, Delaware Industrial Resource Center, 2013.

Member International Advisory Committee, Fifth World Conference on 3D Fabrics and Their Applications, Indian Institute of Technology, Delhi, India, December 16-17, 2013.

Member of Scientific Committee, Mechanics of Composites, Atlanta Georgia, June 8-11, 2014.

Member of Editorial Board of Journal of Materials, July 2012.

Academic panelist at SAMPE 2012 in Baltimore, MD, USA on May 21-24, 2012. Panel discussion on "New Breakthroughs, Future Materials, Preparing Students to Take the Lead – A Global Perspective".

Member International Advisory Committee, Fourth World Conference on 3D Fabrics and Their Applications, RWTH Aachen, Germany, September 10-11, 2012.

Session Chair, 2011 International Fiber Symposium, sponsored by the Fiber Society, AATCC, and the National Textile Center, Charleston, South Carolina, October 11-13, 2011

Co-Chair of International Science Advisory Committee, Third World Conference on 3D Fabrics and Their Applications, Wuhan Textile University, Wuhan, China, April 20-21, 2011.

Member Scientific Advisory Committee, International Conference on Textile Engineering and Materials (ICTEM '2011) Tianjin, China, September 23-25, 2011.

Member Scientific Advisory Board, The Second Joint US-Canada Conference on Composites / 26th ASC Annual Technical Conference, Quebec, Canada, September 26-28, 2011

Member of Organizing Committee of Symposium on New Frontiers in Fiber Materials Science, Clemson University, 2011

Chair, External Advisory Board for NSF Next Generation Composite CREST Center, Southern University, 2010-2014

Member of Advisory Committee, Second Joint US-Canada Conference on Composite, 2010

External Advisory Group for the Composites CREST Center at Southern University, 2010

Member of Editorial Board, Journal of Materials Processing Technology, xxxx-2009

Member of External Advisory Board to the President of Owens Corning Ventures, 2009-.

Contributed to the Technical Advisory Group process of the Evolution of CEM Pulsed Alternators – EM Gun.

Co-Chair, 24th Technical Conference, American Society for Composites and the Canadian Association for Composite Structures and Materials, September 15-17, 2009.

Chair of the International Advisory Committee for the Second World Conference on 3D Fabrics and Their Applications, Greenville, South Carolina, April 2009.

Member of Editorial Board, Advances in Materials Science and Engineering, Hindawi Publishing, 2008 – 2014.

Co-Chair, TEXCOMP9, International Conference on Textile Composites, October 13-15, 2008, University of Delaware.

International Co-Chair, 13th US-Japan Conference on Composite Materials, Nihon University, Tokyo, Japan, June 6-7, 2008

Session Co-Chair, Multi-functional Composites, 13th US-Japan Conference on Composite Materials, Nihon University, Tokyo, Japan, June 6-7, 2008

Member of International Advisory Committee for the First World Conference on 3D Fabrics and Their Applications, Weston Conference Centre, University of Manchester, UK, April 3-4, 2008.

Member of Independent Review Team for Future Combat Systems, March 08.

Editorial Board, Research Letters in Materials Science, 2007.

Sugar Bowl Steering Committee for the Friends of Wilmington Parks and The Delaware Division of Parks and Recreation, 2005-2007.

Editor, *Journal of Thermoplastic Composite Materials*, 1993 – Present.

Chair, National Research Council, National Materials Advisory Board, Committee on High-Performance Structural Fibers for Advanced Polymer-Matrix Composites, 1998–2005.

Member, National Research Council, Commission on Engineering and Technical Systems, Board on Manufacturing and Engineering Design, 1999–2002.

Past President of the Technical Program Committee, Secretary and Member of the Steering Committee, Society of Plastics Engineers Special Interest Group on Joining of Plastics and Composites, 1990–2002.

Chair, Workshop of the National Academies, High Performance Structural Fibers for Advanced Polymer Matrix Composites, Washington DC, April 5-6, 2004

Session Chair, Defense Needs, Workshop of the National Academies, High Performance Structural Fibers for Advanced Polymer Matrix Composites, Washington DC, April 5-6, 2004.

Session Chair, Commercial Needs, Workshop of the National Academies, High Performance Structural Fibers for Advanced Polymer Matrix Composites, Washington DC, April 5-6, 2004.

National Research Council/National Materials Advisory Board Committee on New Materials for Advanced Civil Aircraft, 1994–1996.

Member, Scientific Committee Meeting on Mesomechanics, Montreal, Canada, August 1-4, 2005.

Chair, Materials, Composites and Nanotechnology Working Group, Strengthening the Mid- Atlantic Region for Tomorrow (SMART), Oct 2003 to present

Served as Member of Grey Beard Panel for Weight Reduction in Future Combat System NLOS Cannon and Mortar Vehicles - 2003

Panel Member of the Independent Assessment of the Future Combat Systems (FCS) Critical Manufacturing Technologies for the Deputy Assistant Secretary of the Army (Science and Technology) 2001 – 2002.

Member, Editorial Board, *International Journal of Environmental Technology and Management*, 2000 – Present.

Member, Editorial Board, *International Journal of Materials and Product Technology*, 2000 – Present.

Faculty Advisor, SAMPE, 2000 – Present.

Member, Selection Committee, Jud Hall Composites Manufacturing Award, SME, 2000 – Present.

Member, Executive Committee, ASEE Postdoctoral Fellowship Programs, 1999 – Present.

Adjunct Faculty, Materials Science and Engineering Program, Tuskegee University, 1998 – Present.

Member, International Committee, *Brazilian Journal of Materials Science and Engineering*, 1998 – Present.

Member, National Research Council (Transportation Research Board), National Cooperative Highway Research Program (NCHRP), Project D10-55, *Fiber Reinforced Polymer Composites for Concrete Bridge Decks*, 1998 – 2003.

Session Chair, ASC 2003 Technical Conference, Gainesville, FL, October 20-22, 2003.

Member, Local Scientific Committee, *Fourteenth International Conference on Composite Materials (ICCM-14): Global Composite Advancements-Bridging Academia and Industry*, San Diego, CA, July 14-18, 2003.

Member, Organizing Committee, *Sixth International Conference on Sandwich Constructions*, Fort Lauderdale, FL, March 31 – April 2, 2003.

Session Chair, "Composites Workshop," Leveraging Science and Technology Opportunities," *TechTrends 2002*, Baltimore, MD, 2002.
Co-chair, SME Third Composites Manufacturing and Tooling 2001 Conference.

Member, Executive Board, ARO Tuskegee University Research Consortium on Intelligent Resin Transfer Molding for Integral Armor Applications, 1995–2001.

Panelist, International Conference on Engineering Design and Automation: *Integrated Product and Process Design for Affordable Composite Structures*, Orlando, FL, August 1, 2000.

Member, Task Force for Development of Doctoral Program in Materials Science and Engineering, Tuskegee University/NSF CREST, 1997–2000.

Member, Programme Committee, ISATA 2000: Automotive and Transportation Technology, Dublin, Ireland, September 25–29, 2000.

Plenary Session Participant, 4th International Conference on Engineering Design and Automation, Orlando, FL, July 30–August 2, 2000.

Member, Programme Committee, 32nd International Symposium on Automotive Technology and Automation (ISATA), Vienna, Austria, June 14–18, 1999.
Member, International Advisory Board, Polymer Composites 99: International Symposium on Polymer Composites Science and Technology, Quebec, Canada, October 6-8, 1999.

Member, Programme Committee, 31st International Symposium on Automotive Technology and Automation (ISATA), Dusseldorf, Germany, June 2–5, 1998.

ASC Contact, ICCI '98 (Second International Conference on Composites in Infrastructure), Tucson, AZ, January 5–7, 1998.

Member, Programme Committee, 30th International Symposium on Automotive Technology and Automation (ISATA), Florence Italy, June 16–19, 1997.

Member, Executive Committee and Editor, American Society for Composites, 1990–1997.

Member, Militarily Critical Technology TARDEC Committee Composites for Ground Vehicles, 1995–1996.

Member, Programme Committee, 29th International Symposium on Automotive Technology and Automation (ISATA), Florence Italy, June 3–7, 1996.

Member, Technology Advisory Board for U. S. Army Composites Armored Vehicle–Advanced Technology Demonstrator (CAV–ATD) Program, 1994–1996.

Session Chairman, Joining, ANTEC 96, Indianapolis, IN, 1996.

Session Chairman, Composites for Infrastructure, Eleventh Technical Meeting of the American Society for Composites, Atlanta, GA, October 1996.

Session Chairman, Joining, ANTEC 95, Boston, MA, 1995.

Co-Chairman of the Technical Committee, ENERCOMP 95, International Conference on Composite Materials and Energy, Quebec, Canada, 1995.

Session Chairman and Organizer on Thermoplastic Composite Materials, Second International Conference on Composites Engineering, New Orleans, LA, August 1995.

Session Chairman, Joining, ANTEC 94, San Francisco, CA, 1994.

Session Chairman, Adhesives and Adhesion Promotion, 39th International SAMPE Symposium and Exhibition, Anaheim, CA, April 11–14, 1994.

Member of the Program Committee, 150th Anniversary of the State University Lvivska Polytecnica International Symposium, "Polymers at the Phase Boundary," Lviv, Ukraine, October 25–29, 1994.

Session Chairman, Processing, Joint CCM Research Symposium/ American Society for Composites Ninth Technical Conference, Newark, DE, September 20–22, 1994.

Session Chairman, Joining, ANTEC 93, New Orleans, LA, May 9–13, 1993.

Member of the U.S. Army Armament Research, Development and Engineering Center (ARDEC) Independent Design Review Panel of the 9 MJ Range Gun Compulsator Program at the Institute for Advanced Technology, University of Texas at Austin, Austin, TX, 1993.

Session Chairman, Joining, ANTEC 92, Detroit, MI, May 4–8, 1992.

Member of the Science Advisory Committee for the International Conference on Computer Aided Design in Composite Materials Technology, 1992.

Session Chairman, Processing, American Society for Composites Eighth Technical Conference, Battelle, Cleveland, OH, October 19–21, 1993.

Session Chairman, Processing, American Society for Composites Seventh Technical Conference, Penn State University, October 13–15, 1992.

Member of the Organizing Committee, CADCOMP 92, Third International Conference on Computer Aided Design in Composite Material Technology, University of Delaware, Newark, DE, May 13–15, 1992.

Session Chairman, Center for Composites Annual Research Symposium, September 16–17, 1992.

Session Chairman, American Society for Composites Sixth Technical Conference, RPI, Troy, NY, October 7–9, 1991.

Session Chairman, The Eighth International Conference on Composite Materials (ICCM/VIII), Honolulu, HI, July 15–19, 1991.

Panelist, Joints Session, Fourth Annual Thick Composites in Compression Workshop, Knoxville, TN, July 27–28, 1990.

Panelist, Fundamentals of Compression Session, Fourth Annual Thick Composites in Compression Workshop, Knoxville, TN, July 27–28, 1990.

Session Chairman, American Society for Composites Fifth Technical Conference, East Lansing, MI, June 1990.

Session Chairman, 21st International SAMPE Technical Conference, Atlantic City, NJ, September 25–28, 1989.

Panelist, "Manufacturing Thick-Section Composites," Third Annual Thick Composites in Compression Workshop, Knoxville, TN, July 11–12, 1989.

Session Chairman, "Composites '88," Industrial Materials Research Institute, National Research Council Canada, Boucherville, Quebec, Canada, 1988.

Panelist, “Shaping & Expanding the Composites Skill Base in the ’90s,” 1988 SACMA Fall Conference, San Diego, CA, 1988.

Member, Task Force, Technology-Based Engineering Courseware Consortium, William C. Norris Institute, Minneapolis, MN, 1988.

Reviewer for Promotion and Tenure Committees:

- Professor Srikanth Pilla, Clemson University (Department of Automotive Engineering)
- Professor Hassan Mahfuz, Florida Atlantic University (Oceans Engineering Department)
- Professor Anwar Haque, University of Alabama (Department of Mechanical Engineering)
- Professor Adel Hammami, United Arab Emirates University (Department of Mechanical Engineering).
- Professor Raghavan Jayaraman, University of Manitoba (Department of Mechanical & Industrial Engineering).
- Professor John Henshaw, University of Tulsa.
- Professor Mehrdad Ghasemi Nejhad, University of Hawaii.
- Professor Su-Seng Pang, Louisiana State University.
- Professor John Whitcomb, Texas A&M.
- Professor Ranga Pitchumani, University of Connecticut.

Examiner on Ph. D Committees:

- Pramod Kumar, National Institute of Technology, "Investigation of Damping in Fiber Reinforced Composite Materials," Department of Mechanical Engineering.
- Bijan Derisi, Concordia University, "Development of Thermoplastic Composite Tubes for Large Deformation," Department of Mechanical and Industrial Engineering.
- T. Thomas, Tuskegee University, "Effects of Temperature and Strain Rate on Impact Response of Foam Core Sandwich Structures," MSE03.
- K. Kanny, Tuskegee University, "Effects of Viscoelasticity on the Flexural Fatigue Performance of Foam Core Sandwich Structures," MSE04.
- J. Wang, University of Buffalo, Department of Mechanical Engineering
- S. Mazumder, Concordia University, Department of Mechanical Engineering, Montreal, Canada.
- R. Chandra, Indian Institute of Technology, "Some Micromechanical Studies on Damping in Fiber-Reinforced Composites."
- Christophe Ageorges, University of Sydney, "Resistance Welding of Thermoplastic Matrix Composite Materials."
- Sachin O. Gajbhiye, Indian Institute of Technology, "Multiscale Dynamic Analysis of Carbon Nano-Structures and Nanocomposites."

Reviewer

1. *Science*
2. *Acta Materialia*
3. *ACS Applied Materials & Interfaces*
4. *ACS Nano*
5. *ACS Petroleum Research Fund*
6. *Aerospace Science and Technology*
7. *Advances in Polymer Technology*
8. *Air Force Office of Scientific Research*
9. *American Chemical Society*
10. *American Institute of Aeronautics and Astronautics*
11. *American Institute of Biological Sciences*
12. *American Society for Testing and Materials (ASTM)*
13. *American Society of Mechanical Engineers*
14. *Applied Surface Science*
15. *Analytical Chemistry*
16. *Applied Composite Materials*
17. *Applied Mathematics and Mechanics*
18. *Arabian Journal for Science and Engineering*
19. *Army Research Office*
20. *Australian Research Council*
21. *Austrian Science Fund*
22. *Board of Regents*
23. *Carbon*
24. *Chemical Engineering Science*
25. *Christian Doppler Research Association, Austria*
26. *Clean Products and Processes*
27. *Colloid and Polymer Science*
28. *Composites*
29. *Composites Engineering*
30. *Composites Part A: Applied Science and Manufacturing*
31. *Composites Part B: Engineering*
32. *Composites Science and Technology*
33. *Computational Materials Science*
34. Computer Methods in Applied Mechanics and Engineering
35. Computers and Structures
36. *Department of Energy*
37. *Deutsche Forshungsgemeinschaft (German Research Foundation)*
38. *DOE*
39. *Engineering Fracture Mechanics*
40. *Engineering Structures*
41. *European Journal of Mechanics – A/Solids*
42. *Experimental Mechanics*
43. *Express Polymer Letters*
44. *Freund Publishing House Ltd.*
45. *International Journal of Applied Ceramic Technology*
46. *International Journal of Computational Methods*
47. *International Journal of Environmental Technology and Management*
48. *International Journal of Fracture*
49. *International Journal of Material Forming*
50. *International Journal of Mechanical Sciences*
51. *International Journal of Multiphase Flow*
52. *International Journal of Multiphase Materials*
53. *International Journal of Precision Engineering and Manufacturing*
54. *International Journal of Solids and Structures*
55. *International Journal of Testing and Evaluation*
56. *International Polymer Processing*
57. *Irish Centre for High-End Computing*
58. *United States-Israel Binational Science Foundation*
59. *Journal of Adhesion Science and Technology*
60. *Journal of Alloys and Compounds*
61. *Journal of ASTM International*
62. *Journal of the American Ceramic Society*
63. *Journal of Applied Geophysics*
64. *Journal of Applied Mathematical Modelling*
65. *Journal of Applied Mechanics*
66. *Journal of Applied Physics*
67. *Journal of Applied Polymer Science*
68. *Journal of Bridge Engineering*
69. *Journal of Composite Materials*

70. *Journal of Composites Technology and Research*
71. *Journal of Computational Science*
72. *Journal of Dynamic Behavior of Materials*
73. *Journal of Engineered Fibers and Fabrics*
74. *Journal of Engineering Mechanics*
75. *Journal of Engineering Materials and Technology (American Society of Mechanical Engineers*
76. *Journal of Engineering Structures)*
77. *Journal of Experimental Nanoscience*
78. *Journal of Industrial Textiles*
79. *Journal of Materials ChemistryF*
80. *Journal of Materials and Design*
81. *Journal of Materials Processing Technology*
82. *Journal of Materials and Design*
83. *Journal of Materials Science*
84. *Journal of Mechanics of Materials and Structures*
85. *Journal of Non-Crystalline Solids*
86. *Journal of Physics and Chemistry of Solids*
87. *Journal of Polymer Engineering*
88. *Journal of Rheology*
89. *Journal of Strain Analysis for Engineering Design*
90. *Journal of Structural Engineering (ASCE)*
91. *Journal of Structural Engineering and Mechanics*
92. *Journal of the Textile Institute*
93. *Journal of Thermoplastic Composite Materials*
94. *Journal of the Royal Society Interface*
95. *Journal of Textile Science & Engineering*
96. *Journal of Vibration and Control*
97. *Journal of Vinyl and Additive Technology*
98. *Langmuir*
99. *Macromolecules*
100. *Mechanics of Materials*
101. *Mechanics Research Communications*
102. *Materials Characterization*
103. *Materials Chemistry and Physics*
104. *Materials Science and Engineering A*
105. *Nebraska EPSCoR*
106. *National Materials Advisory Board*
107. *National Science Foundation*
108. *NIST Monograph on Technological*
109. *Office of Naval Research*
110. *Ondon-Tel-Aviv*
111. *Opportunities in Composite Materials*
112. *Physica E*
113. *Polymer*
114. *Polymer & Polymer Composites*
115. *Polymer Composites*

Consulting

1. 3TEX, Research Triangle Park, NC
2. Accudyne, Newark, DE
3. Advanced Ceramics Research, Tucson, AZ
4. A.O. Smith Corp., Milwaukee, WI
5. A. I. Technology, Princeton Junction, NJ
6. Alcoa, Alcoa Center, PA
7. Alliant TechSystems, Rocket Center, WV
8. Alliant TechSystems, Hopkins, MN
9. American Cyanamid, Stanford, CT
10. Anholt Technologies, Newark, DE
11. Atlantic Research Company, Gainsville, VA
12. BP North End Advanced Products, LLC
13. CASDE Corp., Alexandria, VA.
14. DE Technologies, Inc., King of Prussia, PA
15. DuPont Company, Wilmington, DE
16. EdgeCraft Corp., Avondale, PA
17. Foster Miller, Inc., Boston, MA
18. W. L. Gore & Associates, Inc., Newark, DE
19. Hercules Inc., Wilmington, DE
20. ISC Education Systems, Lancaster, PA
21. Johnson & Johnson Orthopedics, Raynham, MA
22. Kenetech Windpower, Livermore, CA
23. Keystone Helicopter Corp., Phoenixville, PA
24. Lanxide Armor Products, Inc., Newark, DE
25. Leeds & Northrup Co., North Wales, PA
26. Lockheed, Marietta, GA
27. Lord Corp., Cary, NC
28. Martin Marietta, Baltimore, MD
29. Martin Marietta Composites, Raleigh NC
30. Materials Science Corp., Fort Washington, PA
31. Micro Contacts, Hicksville, NY
32. National Academies Commission on Engineering and Technical Systems
33. Naval Surface Warfare Center, Annapolis, MD
34. NVF Company, Kennett Square, PA
35. Owens Corning, Granville, OH
36. Pacific Northwest National Laboratory
37. P^2 Inc., Aberdeen, MD
38. Product Design Center, Newark, OH
39. Rogers Corp., Rogers, CT
40. Solectria Corp., Woburn, MA
41. Sorvall, Newtown, CT
42. Southwest Research Institute, San Antonio, TX
43. TDA Associates, Wayne, PA
44. Textron, Providence, RI
45. Thiokol, Brigham City, UT
46. Tension Technology Internat'l, Morristown, NJ
47. Triton Systems, Inc., Chelmsford, MA
48. United Defense, San Jose, CA
49. United States Army
50. University of Texas at Austin
51. Versar, Inc., Springfield, VA
52. VALCOR Engineering Corp., Springfield, NJ
53. Westinghouse, Lima, OH
54. West, Bethlehem, PA
55. Xerox Corp., Brewster,

Teaching and Advisement

Education Courseware

"Experimental Mechanics of Composites," ISC Educational Systems Interactive Videodisc Courseware, Subject Matter Expert, and Instructional Designer, 1988.

"Strength and Failure of Composite Materials," Professional Development Continuing Education Linear Video Course on Composite Materials, Academic Computing and Instructional Technology and Continuing Education, University of Delaware, Newark, DE, 1988.

"Interlaminar Fracture of Composite Materials," Professional Development Continuing Education Linear Video Course on Composite Materials, Academic Computing and Instructional Technology and Continuing Education, University of Delaware, Newark, DE, 1988.

Courses Taught

"Experimental Mechanics" MSEG 667, 2007-2020.

"Mechanical Properties of Materials," MSEG 615, Spring 2003, 2005.

"Material Science for Engineers," MASC 302, Spring 2001, 2002, 2004 (140 undergraduates), 2006 (240 undergraduates)

"Special Problem in Material Science," MASS 466, Winter 2001, Summer 2005.

"Advanced Topics in Materials," MASC 811, Spring 2000.

"Civil Engineering Structures," CIEG 865, Spring 2000.

Special Problem: "Numerical Modeling of an All-Composite Bridge," CIEG 866, Spring 1999.

"Strength of Materials" CIEG 212, Spring 1999.

"Experimental Mechanics of Composite Materials" CEEG 467/667–MASC 466/666, Fall 1998.
"Special Problem in Composite Bridge Deck Characterization" CIEG 866, Spring 1998.

"Experimental Mechanics of Composite Materials" CEEG 667/MASC 666, Department of Civil and Environmental Engineering/Materials Science Program, University of Delaware, Fall 1997.
"Mechanical Properties of Materials," Materials Science Program, Fall 1995 and 1996.

"Experimental Mechanics of Composite Materials," Department of Mechanical Engineering, University of Delaware, Spring Semester 1989 and 1990 and Winter Session 1994.

Current & Completed Ph.D. Students

1. Uday Balaga, Ph.D.M.E.
2. Lukas Fuessel, Ph.D.M.E.
3. Paul Samuel, Ph.D.M.E.
4. Tania Lavaggi, Ph.D.M.E. (Advani)
5. Christopher Scott Meyer, “Impact Damage Evolution of Plain Weave Composites : Multiscale Modeling and Experiments”, Ph.D.M.E., 2022
6. Branndon Chen, Ph.D.M.S.E.
7. Munetaka Kubota, Ph.D.M.S.E.
8. Albraa Ali Jaber, "Modeling and Experimental Investigation of Coatinf of Electrostatically Charged Polymeric Microspheres to a Carbon Fiber Surface", Ph.D.M.E., 2021 (with Advani),
9. Raja Ganesh, Ph.D.M.E., “Micromechanical Finite Element Modeling of Tensile Failure in Unidirectional Composites”, 2022
10. Faheem Muhammed, Ph.D.M.S.E., “Analysis of the Pyrolytic Behavior of Benzoxazine-Derived Carbon/Carbon Composites”, 2022 (with Mirotznik)
11. Sandeep Tamrakar, “Characterization of S-Glass Epoxy Composite Interface Under Various Rates of Loading”, Ph.D.C.E.E., 2018.
12. Preston McDaniel, “Nanoscale Morphology to Macroscopic Performance in Ultra High Molecular Weight Polyethylene Fibers”, Ph.D.M.S.E., 2017.
13. Danning Zhang, “Void Consolidation of Thermoplastic Composites via Non-Autoclave Processing”, Ph.D.M.S.E., 2017.
14. Colin Cwalina, ‘’Shear thickening fluids for enhanced protection from micrometeoroids and orbital debris”, Ph.D.Ch.E., 2016 (with Wagner)
15. Subramani Sockalingam, “Transverse Impact of Ballistic Fibers and Yarns – Fiber Length-Scale Finite Element Modeling and Experiments”, Ph.D.M.E., 2016 (with Keefe)
16. Amanda Kate Guron, (2015 Alan P. Colburn Dissertation Prize) “Nonlinear Oscillatory Rheology and Structure of Wormlike Micellar Solutions and Colloidal Suspensions,” Ph.D.Ch.E., 2015 (with Wagner).
17. Jennifer Mueller Seitens, “Exploring Diffusion of Ultrasonically Consolidated Aluminum and Copper Films Through Scanning and Transmission Electron Microscopy,” Ph.D.M.S.E., 2014.
18. Jens Z. Hansen, “The Effects of Fibre Architecture on Fatigue Life-time of Composite Materials“, Ph.D., 2013 (Technical University of Denmark) – co-supervisor.
19. Quinn McAllister, “The Energy Dissipative Mechanisms of the Particle-Fiber Interface in a Textile Composite,” Ph.D.M.S.E., 2013.
20. Gaurav Nilakantan, (2010 Alan P. Colburn Dissertation Prize) “Modeling the Impact of Flexible Textile Composites Through Multiscale and Probabilistic Methods,” Ph.D.M.S.E., 2010 (with Keefe).

21. Solange Amouroux, “Pressure Driven Transport of Non-Wetting Fluids in Membranes used in Composite Processing”, Ph.D.M.S.E., 2010.
22. Amanda Lim, “Implementing the Split Hopkinson pressure Bar Technique for Complex Fluid Evaluation”, Ph.D.M.S.E., 2010.
23. Angel A Leal Ayala, “Effect of Intermolecular Hydrogen Bonding on the Micro-Mechanical Properties of High-Performance Organic Fibers,” Ph.D.M.S.E., 2008.
24. Xiao Gao, “Textured Interphases,” Ph.D.M.S.E., 2006.
25. Tong Wang, “Fiber Optic Strain Sensors”, Ph.D.M.S.E., 2004.
26. BAZLE A. GAMA (2003 R.L. MCCULLOUGH SCHOLARS AWARD), “HIGH-STRAIN-RATE RESPONSE OF THICK-SECTION COMPOSITES USING FIBER OPTICS,” PH.D.M.S.E., 2004.
27. Witchuda Suwanwatana (2002 Director’s Award), “Induction Heating of Magnetic Nanoparticles,” Ph.D.M.S.E., 2004.
28. Maureen E. Foley, (2001 Director’s Award), “The Microflow Behavior and Interphase Characterization of Fiber Reinforced Polymer Composites,” Ph.D.M.S.E. 2003.
29. John J. Tierney, “Material Quality Development during the Automated Tow Placement Process,” Ph.D.M.S.E., 2002.
30. William M. Edberg, “Behavior of Orthotropic Fiber Reinforced Polymer Bridge Decks on Traditional Girders,” Ph.D.C.E.E., 2001 (with Mertz)
31. Douglas Eckel II, “An All Fiber-Reinforced-Polymer-Composite Bridge: Design Analysis Fabrication Full Scale Experimental Structural Validation Construction and Erection,” 2001 Ph.D.C.E.E.
32. Metin Tanoglu, “Investigation of the Fiber/Matrix Interphase under High Loading Rates,” Ph.D.M.S.E., 2000.
33. Kirk D. Tackitt, “Through-Transmission Ultrasonics for On-Line Sensing and Control of Thermoplastic Fusion Bonding Processes,” Ph.D.M.S.E., 1999.
34. Gopalakrishnan Rajagopalan, “Diffusion of Reacting Thermosets into Thermoplastics,” Ph.D.M.S.E., 1999.
35. Dirk Heider, “Model-Based Control Incorporating Neural Network Optimization of the Automated Thermoplastic Tow-Placement Process,” Ph.D.E.E., 1998.
36. Mark R. Van Landingham, “Characterization of Interphase Regions in Fiber-Reinforced Polymer Composite Materials,” co-advised with R. F. Eduljee, Ph.D.M.S.E., 1997.
37. Steven H. McKnight, “Influence of Surface Modification on the Processing and Performance of Aluminum Adhesive Joints Bonded with Thermoplastic Polymers,” Ph.D.M.S.E., 1996.
38. Ulrich Hansen, “Transverse Cracking of Laminated Composite Materials with Interleaves,” Ph.D.M.E., 1996.
39. David L. Fecko, “In-Situ Ultrasonic Porosity Monitoring for the Thermoplastic-Matrix Pultrusion Process,” Ph.D.M.S.E., 1996.
40. Suranjan Roychowdhury, “Void Formation and Growth in Amorphous Thermoplastic Polymeric Materials,” co-advised with S. G. Advani, Ph.D.M.A.T., 1995.

41. Mehrdad Ghasemi-Nejhad, “Three-Dimensional Thermal and Residual Stress Analysis of In-Situ Thermoplastic Filament Winding,” co-advised with R. Cope and S. I. Güçeri, Ph.D.M.E., 1992.

42. Bruce Fink, “Heating of Continuous Carbon-Fiber-Reinforced Thermoplastics by Magnetic Induction,” co-advised with R. L. McCullough, Ph.D.M.A.T., 1991.

43. Ravi Shanker, “The Effect of Non-Homogeneous Flow Fields and Hydrodynamic Interactions on the Rheology of Fiber Suspensions,” co-advised with S. I. Güçeri, Ph.D.M.E., 1991.

44. Rushad F. Eduljee, “Influence of Microstructure on the Residual Stress Development in Short Fiber Composites,” co-advised with R. L. McCullough, Ph.D.M.A.T., 1991.

45. Scott Gilmore, “Thermal and Residual Stress Analysis in Processing of Thermoplastic Composites,” co-advised with S. I. Güçeri, Ph.D.M.E., 1991.

46. Roger M. Crane, “Vibration Damping Response of Composite Materials,” Ph.D.M.A.T., 1991.

47. Travis A. Bogetti, “Process-Induced Stress and Deformation in Thick-Section Thermosetting Composites,” Ph.D.M.E., 1989.

48. Bruce R. Trethewey Jr., “Mechanics and Performance of Composite Laminates with Discontinuous Internal Plies,” co-advised with D. J. Wilkins, Ph.D.M.E., 1989.

Current & Completed Master's Degree Students

1. William Manning, III, M.M.S.E.
2. Alex Michael Vanarelli, "Optimization of Thin Flexible Compression Column for Implementation into Weight Bearing Garment", M.E., 2020
3. Christopher Scott, M.M.E.
4. Brian Allik, M.M.S.E.
5. Connor Keenan, M.M.S.E.
6. Gregory Kelly, M.S.E.
7. Maxime Dempah, "Development of Spray on Bag for Manufacturing of Large Composites Parts : Diffusivity Analysis", M.S.E., 2014
8. William Chance Malkin, C.E.E.
9. Jeff Rockwell, "High Velocity Impact of Dyneema Laminates of Varying Sizebnnnnnn", C.E.E. 2014
10. Jonathan Stephens, "Performance of Tailored Joints in Discontinuous Ceramic Cored Sandwich Structures", C.E.E., 2012
11. Stephen Beaver, "Transverse Loadings of Bolted Joints in Discontinuous Ceramic Cored Sandwich Structures", C.E.E., 2012
12. Evan Brodsky, "Composite Sandwich Structure Subjected to Blast", M.C.E.E.
13. Stephen Koellhoffer, Role of Friction in the Thermal Development of Ultrasonically Consolidated Foils and Continuous Fiber Reinforced Metal Matrix Composite Tape, M.M.E.
14. Garrett Peters, "Response of the Adhesive Interlayer under Dynamic Loading", M.C.E.E., 2011.
15. Kristopher Weidner, "Performance of Bolted Joints in Discontinuous Ceramic Cored Sandwich Structures", M.C.E.E., 2010.
16. Anthony Manzella, "A Parametric Analysis of the Quasi-Static Penetration of Composite Materials, M.C.E.E., 2010.
17. Kevin Cromer, "Impact and Post-Impact Response of a Composite Material to Multiple Non-Coincident Impacts", M.M.E., 2010.
18. "C" Josiah Hughes, M.S.E., 2009.
19. Justin Clews, "Ultrasonic Consolidation of Continuous Fiber Metal Matrix Composite Tape", M.M.S.E., 2009.
20. Michael Golt, "Magnetic and Dielectric Properties of Magneto-Dielectric Materials Consisting of Oriented, Iron Flake Filler within a Thermoplastic Host," M.M.S.E., 2008.
21. David Streilein, "Development of a Model for Predicting the Alignment of Ferromagnetic Particles in a Thermoplastic Matrix," M.M.S.E., 2007.
22. Curt Cichanowski, "Strain Rate Dependent Interlaminar Properties," M.M.S.E., 2003.
23. Michael Larson, "Split Hopkinson Bar Data Reduction," M.M.S.E., 2003.

24. John Brody, “The Evaluation of Preform Binders in Laminated Composite Materials,” M.M.S.E., 2003.
25. Nathaniel Johnson, M.E.C.E., 2002.
26. Anuya Harkare, “In-situ Barrier Layer Formation for CIRTM,” M.M.S.E., 2002.
27. Prakriti Taylia, “Design and Optimization of Magnetorestrictive Sensors for Strain Monitoring,” M.M.S.E., 2002.
28. Jeffrey A. Acheson, “The Role of Vacuum Pressure, Dual Scale Media, and Fiber Compaction in VARTM,” M.M.E., 2002.
29. Florella Flores (2000 Achievement Award), “Investigation of Cure Behavior in Thermosetting Composites Using Fiber Optics,” M.M.S.E., 2001.
30. Todd West, “Enhancements to the Bond between Advanced Composite Materials and Steel for Bridge Rehabilitation,” M.C.E.E., 2001. **Also published as DCT-140 December 2002. Delaware Center for Transportation.
31. Franklin L. Moon II, “Large-Scale Experimental Validation of an All-Composite Bridge Deck and Deck Connections,” M.C.E.E., 2000.
32. Mahendra Babu Dorairaj, “Cure Characterization of Vinyl Ester Resins using Direct Current Sensing,” M.M.S.E., 1999.
33. John Demitz, “Limit States Design Methodology for Composite Material Bridge Structures,” M.C.E., 1999.
34. Ahmed Monib, “Damage Tolerance of Thick-Section Composites Subjected to Ballistic Impact,” M.M.S.E., 1999.
35. Kanu P. Singh, “Characterization of Phenolic Resins and Their Co-Cure with Other Matrix Resins,” M.M.S.E., 1999.
36. Emanuele F. Gillio, “Co-Injection Resin Transfer Molding of Hybrid Composites,” co-advised with S. G. Advani, M.M.E., 1998.
37. Douglas A. Eckel II, “A Theoretical and Experimental Study of the Behavior of Sandwich Bridge Decks Composed of Composite Materials,” co-advised with D. R. Mertz, M.C.E., 1998.
38. Steven M. Andersen, “Development of Joint Designs and Design Methodology for Composite Pressure Hulls,” M.M.E., 1998.
39. Molly A. Stone, “Thermochemical and Thermomechanical Response of Reacting Polymers,” co-advised with B. K. Fink, M.M.S.E., 1997.
40. Kenric M. England, “Direct Current Sensing of Viscosity and Degree of Cure of Vinyl-Ester Resins,” co-advised with B. K. Fink, M.M.S.E., 1997.
41. Kristie M. Immordino, “Characterization of the Polysulfone/Epoxy Interphase for Bonding Thermoplastic Composites,” co-advised with S. H. McKnight, M.M.S.E., 1996.
42. Michael A. Sasdelli, “A Methodology for the Design and Manufacture of RTM Composites with Molded-In Metal Inserts,” co-advised with V. M. Karbhari, M.M.E., 1996.
43. Nouredine Ammar, “Rehabilitation of Steel Bridge Girders with Graphite Pultrusion,” co-advised with D. R. Mertz, M.C.E., 1996.

44. Thomas Miller, “Characterization and Constitutive Modeling of Flexible Polyurethane Matrix Continuous Fiber Composites,” M.M.S.E., 1996.

45. Scott T. Holmes, “A Study of the Processing and Performance of Large-Scale Resistance Welded Thermoplastic Composite Joints,” M.M.E., 1996.

46. Min Chao, “Non-Isothermal Strength Model Including Healing and Bondline Thickness Effect for Fusion Bonding of Thermoplastic Composites,” M.M.S.E., 1993.

47. Christopher L. Pedersen, “The Effect of Temperature on Transverse Crack Development in Carbon-Fiber-Reinforced Cross-Ply Laminates,” co-advised with R. L. McCullough, M.Ch.E., 1992.

48. Laurent J. Bastien, “Nonisothermal Model for Fusion Bonding of Thermoplastic Composites Using an Amorphous Film Technique,” M.M.S.E., 1990.

49. Eric C. Eveno, “Experimental Investigation of Resistance and Ultrasonic Welding of Graphite Reinforced Polyetheretherketone Composites,” co-advised with J. R. Vinson and J. M. Schultz, M.M.S.E., 1988.

50. Thomas J. Chapman, “The Effect of Cooling Rate on Residual Stresses and Mode I Fracture Toughness of Thermoplastic Composite Materials,” co-advised with R. B. Pipes, M.M.E., 1988.

51. Gary J. Becht, “An Investigation of Interlaminar Fracture of Composite Materials Under Mode III Loading,” M.M.E., 1988.

52. Valerie Guenon, “Interlaminar Fracture Toughness of a Three-Dimensional Composite,” co-advised with T-W. Chou, M.M.E., 1987.

53. Rushad F. Eduljee, “Process Induced Fiber Orientation and Weld-Line Studies on BMC and TMC Materials,” co-advised with R. B. Pipes, M.M.S.E., 1987.

54. Travis A. Bogetti, “Process Induced Stress and Deformation in Thick-Section Thermosetting Composites,” co-advised with R. B. Pipes, M.M.E., 1987.

55. Robert J. Rothschilds, “Mixed Mode Delamination Failure Criteria,” co-advised with R. B. Pipes, M.M.E., 1986.

56. Jean Bozarth, “Fiber Orientation of Carbon Fiber Reinforced PEEK and Its Effect Upon Thermoelastic Properties (An Experimental/Analytical Comparison Study),” co-advised with R. B. Pipes, M.M.E., 1985.

57. Jean Vanderschuren, “Prediction of the Strength of Short Fiber Composites with Molded-In-Holes,” co-advised with R. B. Pipes, M.M.E., 1983.

Conflict of Interest

COI for	John W. Gillespie	Collaborator/Co-Author (past 4 years)
Affiliation:	University of Delaware	Co-Editor (past 2 years)
Role:	Principal Investigator	Graduate Advisor (your own)
		Postdoctoral Advisor (your own)
		Postdoctoral Scholar (past 5 years)
		Graduate Student (all prior)

Last Name	First Name	Current Affiliation (if known)	Type of Conflict -
Abrams	Cameron	Drexel	Collaborator/Co-Author
Abu-Obaid	Ahmad	Zagar University, Jordans	Collaborator/Co-Author
Adkinson	William	University of Delaware	Collaborator/Co-Author
Advani	Suresh	University of Delaware	Collaborator/Co-Author
Agrawal	Sunil	Columbia	Collaborator/Co-Author
Alfredsson	K.	University of Skovde	Collaborator/Co-Author
Bogetti	Travis	Army Research Laboratory	Collaborator/Co-Author
Brady	Janet	Philadelphia University	Collaborator/Co-Author
Brondsted	Povl	Technical University of Denmark	Collaborator/Co-Author
Burns	B.	University of Pennsylvania	Collaborator/Co-Author
Carlsson	Leif	Florida Atlantic University	Collaborator/Co-Author
Chen	Wayne	Purdue University	Collaborator/Co-Author
Chowdhury	Sanjib	University of Delaware	Collaborator/Co-Author
Chou	Tsu-Wei	University of Delaware	Collaborator/Co-Author
Dey	Moutushi	Air Liquide	Collaborator/Co-Author
Gao	Xiao	3M	Collaborator/Co-Author
Gawandi	Anis	Siemens	Collaborator/Co-Author
Deitzel	Joseph	University of Delaware	Collaborator/Co-Author
Drane	Patrick	University of Massachusetts	Collaborator/Co-Author
Haque	Bazle	University of Delaware	Collaborator/Co-Author
Hartman	Dave	Owens Corning	Collaborator/Co-Author
Harrington	J.	University of Delaware	Collaborator/Co-Author
Heider	Dirk	University of Delaware	Collaborator/Co-Author
Hoppel	R.	US Army	Collaborator/Co-Author
Hurley	Timothy	DiaPedia	Collaborator/Co-Author
Jensen	Robert	Army Research Laboratory	Collaborator/Co-Author
Keefe	Michael	University of Delaware	Collaborator/Co-Author
Lopatnikov	Sergey	University of Delaware	Collaborator/Co-Author
Lumpkin	R.	Mentis Sciences	Collaborator/Co-Author
Maher	Michael	Maher & Associates	Collaborator/Co-Author
Merrill	R.	US Army	Collaborator/Co-Author

McKnight	Stephen	Virginia Tech	Collaborator/Co-Author
Molligan	Danny	University of Delaware	Collaborator/Co-Author
Morand	C.	Mentis Sciences	Collaborator/Co-Author
Palmese	Giuseppe	Drexel	Collaborator/Co-Author
Ramesh	K.T.	JHU	Collaborator/Co-Author
Riley	John	NCMS	Collaborator/Co-Author
Scarborough	Stephen	ILC Dover	Collaborator/Co-Author
Simacek	Pavel	University of Delaware	Collaborator/Co-Author
Sahin	O.	Selcuk University	Collaborator/Co-Author
Sherwood	Jim	University of Massachusetts	Collaborator/Co-Author
Sun	Z.	Rice	Collaborator/Co-Author
Tierney	John.	University of Delaware	Collaborator/Co-Author
Thostenson	Erik	University of Delaware	Collaborator/Co-Author
VanLandingham	Mark	Army Research Laboratory	Collaborator/Co-Author
Wagner	Norm	University of Delaware	Collaborator/Co-Author
Wetzel	Eric	Army Research Laboratory	Collaborator/Co-Author
Xiao	John	University of Delaware	Collaborator/Co-Author
Yarlagadda	Shridhar	University of Delaware	Collaborator/Co-Author
Zangenberg	Jens	Technical University of Denmark	Collaborator/Co-Author
Zheng	James	US Army	Collaborator/Co-Author
Pipes	Byron	Purdue	Graduate Advisor
Allik	Brian	Synchron, LLC	Graduate Student
Armouroux	Solange	Dassault	Graduate Student
Bogetti	Travis	Army Research Laboratory	Graduate Student
Brodsky	Evan	Delaware Dept. of Transportation	Graduate Student
Cicchetti	Nicole	Unknown	Graduate Student
Crane	Roger	Composites Automation	Graduate Student
Cromer	Kevin	TCOM	Graduate Student
Cwalina	Colin	Dow Chemical	Graduate Student
Dempah	Maxime	Meggitt	Graduate Student
Eckel	Douglas	Unknown	Graduate Student
Edberg	William	HNTB	Graduate Student
Eduljee	Rushad	Citi	Graduate Student
Fecko	David	Penn State	Graduate Student
Fink	Bruce	Deceased	Graduate Student
Foley	Maureen	Naval Surface Warfare Center	Graduate Student
Ganesh	Raja	University of Delaware	Graduate Student
Gao	Xiao	3M	Graduate Student
Gilmore	Scott	Unknown	Graduate Student
Gopalakrishnan	Rajagopalan	United Technologies	Graduate Student
Guron	Amanda Kate	University of Delaware	Graduate Student
Hansen	Jens	LM Wind	Graduate Student
Hansen	Ulrich	Imperial College London	Graduate Student
Haque	Bazle	University of Delaware	Graduate Student
Heider	Dirk	University of Delaware	Graduate Student

Keenan	Connor	Hexcel	Graduate Student
Kelly	Gregory	First Quality Enterprises	Graduate Student
Koellhoffer	Stephen	Terumo Cardiovascular Systems	Graduate Student
Leal	Angel	ABB	Graduate Student
Malkin	Chance	Pennoni Assoc.	Graduate Student
Manzella	Anthony	Armann & Whitney	Graduate Student
McAllister	Quinn	San Diego Composites	Graduate Student
McDaniel	Preston	Dow Chemical	Graduate Student
McKnight	Stephen	Virginia Tech	Graduate Student
Mehrdad	Ghasemi-Nejhad	University of Hawaii	Graduate Student
Meyers	Christopher	ARL	Graduate Student
Mishra	Roshan	University of Delaware	Graduate Student
Nilakantan	Guarav	University of Southern California	Graduate Student
Peters	Garrett	DuPont	Graduate Student
Ratzlaff	Adam	University of Delaware	Graduate Student
Rockwell	Jeffrey	Reed Composites	Graduate Student
Roychowdhury	Suranjan	Unknown	Graduate Student
Scott	Christopher	General Electric	Graduate Student
Shanker	Ravi	Dow Chemical	Graduate Student
Sietins	Jennifer Mueller	Army Research Laboratory	Graduate Student
Sockalingam	Subramani	University of South Carolina	Graduate Student
Staniszewski	Jeffrey	Army Research Laboratory	Graduate Student
Tackitt	Kirk	Alliant Techsystems	Graduate Student
Tamrakar	Sandeep	Ford	Graduate Student
Tanoglu	Metin	Izmir Institute of Technology	Graduate Student
Tierney	John	University of Delaware	Graduate Student
Trethewey	Bruce	Johns Hopkins	Graduate Student
Tsuchida	Yukia	Unknown	Graduate Student
Vanarelli	Alex	University of Delaware	Graduate Student
VanLandingham	Mark	NIST	Graduate Student
Wang	Tong	Unknown	Graduate Student
Weidner	Christopher	AECOM	Graduate Student
Witchuda	Suwanwatana	Unknown	Graduate Student
Wu	Amanda	Lawrence Livermore National Lab	Graduate Student
Zhang	Danning	Arevo	Graduate Studen.t

Past Students Now Teaching

1. Prakash Jadhave, Ph.D. – SRM University, India
2. Tong-Earn Tay – National University of Singapore
3. Mehrdad Ghasemi Nejhad - 1992 – University of Hawaii at Manoa
4. Ranga Pitchumani – University of Connecticut
5. Ulrich Hansen - 1996 – University of London, England
6. Dirk Heider – 1998 - University of Delaware – Electrical and Computer Engineering
7. Franklin Moon - 2000 – Drexel University
8. Metin Tanoglu - 2000 – Izmir Institute of Technology, Turkey
9. William Edberg - 2001 - University of Massachusetts Dartmouth
10. Guowei Ma, 2002 – Nanyang Technological University, Civil and Environmental Engineering
11. Bazle Zahurul (Gama) Haque – 2004 - University of Delaware – Mechanical Engineering
12. Myung-Keun Yoon, 2005 – South Dakota School of Mines
13. Francis Aviles, 2006 – Center of Scientific Research of Yucatan (CICY)
14. Alberto Ortona, 2007 – Ecole Polytechnique Fédérale de Lausanne (EPFL)
15. Nuri Ersoy, 2011 – Assoc. Professor, Mechanical Engineering Dept. Bogazici University, Istanbul, Turkey
16. Steven H. McKnight – 2014 – Professor, Virginia Tech
17. Shridhar Yarlagadda – Electrical and Computer Engineering
18. Ray Dagastine, Dept. of Chemical and Biomolecular Engineering, University of Melbourne, Australia
19. Subramani Sockalingam – 2017 – Mechanical Engineering, University of South Carolina

Science & Engineering Scholars

1. Jeffrey Bergman, “Graphical User Interface Development for Smart Fins: Piezoelectric Fin Control,” 2005.
2. Eric Busillo, 2004
3. Jennifer Pahnke, 2002.
4. Benjamin Rohner, “Fiber Optics Strain Measurement,” 2000-2001.
5. Michelle Choi (Imperial College), “Durability of the Carbon-Fiber/Vinyl-Ester Interphase,” 2000.
6. Amy Cummings, “Investigation of a Hybrid Composite Beam System,” 2000.
7. Brandon Fichera, “Influence of Moisture on Composites: Diffusion in Hygroscopic Expansion,” 1996–1997.
8. Scott Quirico, “Microstructure Property Relationships for In-Situ Thermoplastic Composites Manufacturing,” 1996–1997.
9. Jason Firko, “Induction Heating of Composites,” 1996–1997.
10. Scott Gilmore, “Numerical Solutions in Anisotropic Composite Materials,” 1984–1985.
11. Jeffrey Burmeister, “Testing and Analysis of Fluoropolymer Fabric Composites,” 1986–1987.
12. Robert Taylor, “Bearing Failure,” 1986–1987.
13. Laura McCarron, “Analysis of Injection Molding,” 1987–1988.
14. Ann Marie Sastry, “Influence of Constituent Properties and Geometric 601 Form on Behavior of Woven Fabric Reinforced Composites,” 1987–1988.
15. Roderic C. Don, “Ultrasonic Welding of Thermoplastic Composites Fiber/Matrix Interface,” 1988–1989.
16. William Eberle, “Three-Dimensional Reinforcement of a Composite T-Section,” 1990–1991.
17. John Bastianelli, “Fiber Placement of Thermoplastic Composites,” 1992–1993.
18. Loyd Burcham, “Accelerated Test Methodology for Thermal Aging,” 1992–1993.
19. Robert Foglesong, “Transverse Cracking of Composite Laminates,” 1992–1993.
20. Eric Wetzel, “Large-Scale Resistance Welding,” 1992–1993.
21. Matthew McBride, “Welding of Aluminum to Polypropylene Composites,” 1993–1994.
22. Darlene Gorton, “Robotic Fiber Placement of Thermoplastic Composites,” 1994–1995.
23. Chirag Mehta, “Durability of High-Performance Composites for High-Speed Civil Transport Applications,” 1994–1995.
24. Ahmed Monib, “Infrastructure Rehabilitation Using Composites,” 1994–1995.
25. Mark Scott, “Welding of Dissimilar Materials,” 1994–1995.
26. Ankur Parekh, “Rapid Placement Technology for Affordable Composites Manufacturing,” 1995–1996.

27. Eric Ramos, “Repair of Thick-Section Composites,” 1995–1996.

28. Kevin Stolfo, “Investigation of Ultrasonics for Field Inspection of Thick-Section Composites,” 1995–1996.

29. Aristedes Yiournas, “Structural Adequacy of Thick-Section Repaired Composites,” 1995–1996.

Current Research Professionals and Administrative Staff

1. Mrs. Raija Eggert, Administrative Assistant
2. Mr. Connor Whitehead, Composite Technician II
3. Mr. Aidan Ford, Materials and Process Engineer
4. Dr. Abhishek Bhesania, Postdoctoral Researcher
5. Dr. Ankita Bisht, Postdoctoral Researcher
6. Dr. Nuwan Dewapriya Mallika Arachchige, Postdoctoral Researcher
7. Dr. Abdasalam Ibrahim Fadeel, Postdoctoral Researcher
8. Dr. Navid Niknafs Kermani, Postdoctoral Researcher
9. Ms. Megan Maher, Financial Analyst II
10. Mr. Keith Carey, Composite Technician II
11. Mr. Zachary Krewson, Research Associate II
12. Dr. Ahmad AbuObaid, Associate Scientist
13. Mr. Jesse Brown, Electromechanical Design Engineer
14. Dr. Dirk Heider, Asst. Director for Technology
15. Dr. Joseph Deitzel, Sr. Scientist
16. Dr. John Tierney, Sr. Scientist
17. Dr. Nicholas Shevchenko, Manager Composite Technology
18. Dr. Nithin Kaliyath Parambil, Research Associate III
19. Dr. Pavel Simacek, Research Associate III
20. Dr. Sagar Doshi, Associate Scientist
21. Dr. Shridhar Yarlagadda, Asst. Director for Research
22. Dr. Steve Sauerbrunn, Thermal Analysis Engineer
23. Dr. Tekin Ozdemir, Postdoctoral Researcher
24. Dr. Thomas Cender, Scientist
25. Mr. Alex Vanarelli, Composites Design Manager
26. Mr. Christian Marquina, Research Associate II
27. Mr. David Roseman, Manufacturing Process Engineer
28. Mr. John Morris, Research Technician II
29. Mr. John Thiravong, Laboratory Coordinator II
30. Mr. Molla Ali, Research Technician
31. Mr. Munetaka Kubota, Materials Engineer
32. Mr. Shashank Sharma, Manufacturing Engineer

33. Mr. John Pollock, Accountant
34. Mrs. Corinne Hamed, Administrative Specialist
35. Mrs. Kristen Scully, Administrative Assistant III
36. Mrs. Therese Stratton, Business Administrator

Past Research Professionals and Administrative Staff

1. Dr. Bazle Z. (Gama) Haque, Sr. Scientist
2. Mr. Christian Marquina, Research Associate II
3. Ms. Courtney Carpenter, Research Technician
4. Dr. Sanjib Chowdhury, Associate Scientist
5. Mr. Ryan Rogers, Lead Advanced Mfg. Process Engineer
6. Dr. Laure Moretti, Postdoctoral Researcher 2022
7. Mr. Robert Balonis, Composite Technician I
8. Dr. Jejoon Yeon, Postdoctoral Researcher, 2022
9. Mr. Larry (LJ) Holmes, Asst. Director Additive Manufacturing, 2022
10. Dr. Fatmaelzahraa Mohamed Abdelmola, Postdoctoral Researcher, 2021
11. Dr. Chris Henry, Postdoctoral Researcher, 2021
12. Mrs. Heather Gordon, Sr. Sponsored Program Coordinator, 2020
13. Dr. Patrick Dixon, Postdoctoral Researcher, 2020
14. Mr. Dan Molligan, Asst. Director Composite Engineering, 2020
15. Ms. Leah Stephens, Administrative Assistant, 2020
16. Mr. Jason Etherington, Comp Design Manager, 2020
17. Ms. Winona Burris, Research Technician II, 2020
18. Mrs. Robin Mack, Administrative Assistant, 2020
19. Mrs. Penny O'Donnell, Administrative Assistant, 2019
20. Mr. Stephen Durbano, Research Technician, 2019
21. Mr. Robert Morgan, Research Associate, 2019
22. Mr. William Adkinson, Sr. Materials & Process Eng, 2017
23. Mrs. Megan Hancock, Sr. Sponsored Program Coordinator, 2017
24. Mr. Michael Lourdemaria, Composite Design Associate II, 2017
25. Mr. William Patterson, Materials & Process Engineer, 2017
26. Ms. Jessica Sun, Research Associate II, 2018
27. Mr. Tulong Zhu, Sr. Composites Engineer, 2017
28. Dr. Narinder Khattra, Postdoctoral Researcher, 2017
29. Dr. Tong Li, Postdoctoral Researcher, 2017
30. Dr. Laksmanan Palanimuthu, Postdoctoral Researcher, 2017
31. Mr. Mark Davis, Composite Technician II, 2017
32. Mr. Ryan Jackson, Composite Technician, 2017

33. Mr. Bernard Schneiders, Composite Technician II, 2017
34. Mr. Jordan Wagner, Composite Technician II, 2017
35. Ms. Alison Wells, Composite Technician II, 2015
36. Mr. Michael Gilley, Composite Technician, 2014
37. Dr. Sergey Lopatnikov, Associate Scientist, 2014
38. Mrs. Moutushi Dey, Limited Term Researcher, 2014
39. Mr. Philip Rollins, Limited Term Researcher, 2014
40. Mr. Kenneth Wilkins, Laboratory Technician, 2014
41. Mr. Greg Kelly, Limited Term Researcher, 2014
42. Ms. Rachael Creighton, Composite Technician, 2014
43. Dr. Changsheng Shan, Postdoctoral Researcher, 2014
44. Mr. Philip Roach, Laboratory Coordinator, 2013
45. Mr. John Lewis, Laboratory Technician, 2013
46. Mr. David Fudge, Composite Engineer, 2013
47. Mrs. Kelly Mecca, Laboratory Technician, 2013
48. Mr. Anthony Thiravong, Research Technician II, 2013
49. Mr. Hope Deffor, Research Associate II, 2012
50. Dr. Arthur Levy, Postdoctoral Researcher, 2012
51. Dr. Gaurav Nilakantan, Limited Term Researcher, 2012
52. Mr. Pit Schulze, Research Associate, 2012
53. Dr. Sphurti Bhargava, Postdoctoral Researcher, 2012
54. Mr. Mark Scott, Limited Term Researcher, 2011
55. Mr. Augustus Mandrachia, Sponsored Program Processing Associate, 2011
56. Dr. Anton Kovalchuk, Postdoctoral Researcher, 2011
57. Dr. Anis Gawandi, Research Associate II, 2011
58. Mr. Christopher Arvanitelis, Limited Term Researcher, 2011
59. Dr. Sangguk Kang, Limited Term Researcher, 2011
60. Mr. Raymond McCauley, Limited Term Researcher
61. Mr. Jason McLaughlin, Limited Term Researcher, 2011
62. Dr. Madhwapati Prabhakar Rao, Limited Term Researcher, 2011
63. Mr. Leonard Hobbs, Manager
64. Mr. Stephen Andersen, Asst. Director for Military Programs, 2010
65. Mr. Kyle Brand, Limited Term Researcher, 2010

66. Mr. Adam DiNetta, Laboratory Technician, 2010
67. Ms. Olivia Polczyk, Research Associate, 2010
68. Mr. Denis Kissounko, Limited Term Researcher, 2010
69. Ms. Robin Sheffield, Records Specialist
70. Dr. Chunyu Li, Limited Term Researcher, 2009
71. Mrs. Kimberley Green, Sponsored Program Coordinator
72. Mr. Anthony Hendrickson, Limited Term Researcher, 2008
73. Mrs. Neelima Yarlagadda, Limited Term Researcher, 2008
74. Mr. Prakash Jadhav, Limited Term Researcher, 2008
75. Mr. Shawn Doherty, Limited Term Researcher, 2008
76. Mr. Jie Zhang, Limited Term Researcher, 2008
77. Mrs. Veronica Gamboa, Records Technician, 2008
78. Mr. Ajaya Nayak, Limited Term Researcher, 2008
79. Dr. Jiarun Xiao, Associate Scientist, 2007
80. Mr. Huseyin Denli, Limited Term Researcher, 2007
81. Mr. Hans Laudorn, Limited Term Researcher, 2007
82. Mr. Zaicheng Sun, Limited Term Researcher, 2007
83. Mr. Ashiq Quabili, Limited Term Researcher, 2007
84. Dr. Jeffrey Lawrence, Limited Term Researcher, 2007
85. Dr. Crystal Newton, Scientist, 2006
86. Dr. Aurimas Dominauskas, Research Associate III, 2006
87. Mr. Young Seok Song, Limited Term Researcher, 2006
88. Dr. Yuhong Zhang, Postdoctoral Researcher, 2006
89. Mr. Francis Aviles, Limited Term Researcher, 2006
90. Dr. Sukti Chatterjee, Limited Term Researcher, 2006
91. Dr. Amit Chatterjee, Research Associate III, 2006
92. Mr. Barry Pollock, Limited Term Researcher, 2006
93. Dr. Suvarchala Pogula, Postdoctoral Researcher
94. Dr. Hee June Kim, Research Associate II, 2005
95. Dr. Haifeng Chen, Limited Term Researcher, 2005
96. Mr. Md Jahirul Haque, Research Associate II, 2005
97. Dr. Weidong Li, Postdoctoral Fellow, 2005
98. Mr. Myung Keun Yoon, Research Associate II, 2005

99. Mr. Carl Krauthauser, Limited Term Researcher, 2004
100. Dr. Wei Li, Postdoctoral Researcher, 2004
101. Dr. Libo Ren, Postdoctoral Researcher, 2004
102. Mr. Saravana Kumar, Limited Term Researcher, 2004
103. Mr. Zhicheng Yu, Limited Term Researcher, 2004
104. Dr. Biswajit Chattopadhyay, Postdoctoral Fellow, 2003
105. Mr. Antonio Paesano, Limited Term Researcher, 2003
106. Mr. Kuang-Ting Hsiao, Limtied Term Researcher, 2003
107. Mr. Yongmao Shen, Limited Term Researcher, 2003
108. Dr. Guowei Ma, Postdoctoral Researcher, 2002
109. Mr. Saeed Ziaee, Limited Term Researcher, 2002
110. Dr. Stephane Mahdi, Postdoctoral Researcher, 2002
111. Dr. Mahmoud Dweib, Postdoctoral Researcher, 2001
112. Dr. Lorence Augh, Postdoctoral Fellow, 2001
113. Dr. Selen Ciftci, Postdoctoral Researcher, 2001
114. Dr. Gopalakrishnan Rajagopalan, Postdoctoral Researcher, 2000
115. Dr. Feiyi Pang, Postdoctoral Fellow, 1999
116. Dr. Brahim Tighiouart, Postdoctoral Researcher, 1999

Visiting Scholars and Interns

1. Markus Schwaiger, Visiting Scholar 2023
2. Richard Kraft, Visiting Scholar 2022
3. Alexander Legenstein, Visiting Researcher 2022
4. Joao Machado, Vistiting Researcher 2022
5. Duco Mulder, Visiting Researcher 2022
6. Fynn Snger, Visiting Researcher 2022
7. Julien Ferec, Visiting Professor 2021-2022
8. Ali Imran Ayten, Visiting Researcher 2021-Present
9. Rebecca Emmerich, Visiting Researcher 2021-2022
10. Aydin Gunes, Visiting Researcher 2021-Present
11. Tekin Ozdemir, Visiting Researcher 2019-Present
12. Maria Odila Hilario Cioffi, Visiting Professor, 2020-2021
13. Mark Davis, Visiting Researcher, 2017-Present
14. Lukas Fuessel, Visiting Scholar, 2018-2021
15. Nithinkumar Manoharan, Visiting Scholar, 2020-2021
16. Kai Phouthavongsa, Visiting Researcher, 2019-Present
17. Tania Lavaggi, Vistiting Scholar, 2020-Present
18. Sriragesh Thangraj, Visiting Scholar, 2020
19. Uday Balaga, Visiting Scholar, 2019-2020
20. Daniel Brighenti Bortoluzzi, Visiting Scholar, 2019-2020
21. Sinan Boztepe, Visiting Researcher, 2019
22. Alexander Gabriel, Visiting Scholar, 2019
23. Simon Hammer, Visiting Scholar, 2019-2020
24. Mert Hancioglu, Visiting Scholar, 2018-2019
25. Robert Sionkala, Visiting Scholar, 2019
26. Verena Gargitter, Visiting Scholar, 2017-2019
27. Jens Marchetti, Visiting Scholar, 2018
28. Estefania Zielinski Moura, Visiting Scholar, 2018
29. Barbara Righetti De Souza, Visiting Scholar, 2018
30. Olena Syerko, Visiting Scholar, 2018
31. Olena Syerko, Visiting Scholar, 2018
32. Soodabeh Sharafi, Visiting Scholar 2018
33. Ahamd AbuObaid, Visiting Professor, 2017-2018
34. Ricardo Mello Di Benedetto, Visiting Scholar, 2017-2018
35. Yi Geng, Visiting Scholar, 2016-2018
36. Tanja Arnolds, Visiting Scholar, 2017-2018
37. Matt Etchells, Visiting Scholar, 2018

38. Mert Hencioglu, Visiting Scholar, 2018-2019
39. Masoud Bodaghi, Visiting Scholar, 2017
40. Ghassen Brinis, Visiting Scholar, 2017
41. Georg Burkhardt, Visiting Scholar, 2017
42. Juan Carlos Canaza, Visiting Scholar, 2017
43. David de Haes, Visiting Scholar, 2016-2017
44. Sabrine Gharbi, Visiting Scholar, 2017
45. Mario, Golz, Visiting Scholar, 2017
46. Richard Haas, Visiting Scholar, 2016-2017
47. Chaima Hammi, Visiting Scholar, 2017
48. Wassim Khorchef, Visiting Scholar, 2017
49. Mohamed Lahmar, Visiting Scholar, 2017
50. Katia Nunes, Visiting Scholar, 2017
51. Ana Carolina Santos, Visiting Scholar, 2017
52. Oussama Saoud, Visiting Scholar, 2017
53. Rania Triki, Visiting Scholar, 2017
54. Ties van de Woord, Visiting Scholar, 2017
55. Rexhep Ajvazi, Visiting Scholar, 2016
56. Mohamed Henchir, Visiting Scholar, 2016
57. Meike Kollmannthaler, Visiting Scholar, 2016
58. James Maguire, Visiting Scholar, 2016
59. Ffion Martin, Visiting Scholar, 2016
60. Rodrigo De Sousa E Silva, Visiting Scholar, 2016
61. Maik Theissig, Visiting Scholar, 2016
62. Lutz Venhofen, Visiting Scholar, 2016
63. Katharina Resch, Visiting Scholar, 2015
64. Christian Vierkoetter, Visiting Scholar, 2015
65. Pavel Saieed, Visiting Scholar, 2015
66. Raphael Derop, Visiting Scholar, 2015
67. Julia Cavalheiro Rodrigues, Visiting Scholar, 2015
68. Jonas Dossmann, Visiting Scholar, 2015-2017
69. Jonas Hammer, Visiting Scholar, 2015-2016
70. Johannes Simons, Visiting Scholar, 2015-2016
71. Sinan Boztepe, Visiting Scholar, 2014-2015
72. Raphael Dill, Visiting Scholar, 2014-2015
73. Gabor Muenkel, Visiting Scholar, 2014-2015
74. Ewald Fauster, Visiting Scholar, 2014-2015
75. Frank Notten, Visiting Scholar, 2014-2015
76. Michael Victor, Visiting Scholar, 2014-2015

77. Zhe Gao, Visiting Scholar, 2014-2015
78. Fabian Bosch, Visiting Scholar, 2014
79. Dominic Dolan, Visiting Scholar, 2014
80. Beatriz Goncalves, Visiting Scholar, 2014
81. Breno Silva de Carvalho, Visiting Scholar, 2014
82. David McGlynn, Visiting Scholar, 2014
83. Jonathan Faull, Visiting Scholar, 2013
84. Hui-Yun Hwang, Visiting Professor, 2013-2014
85. Andrew Kennedy, Visiting Scholar, 2013
86. Jun Misumi, Visiting Researcher, 2013-2015
87. Roman Woznitza, Visiting Scholar, 2013
88. Gerhard Wischmann, Visiting Scholar, 2013
89. David Elfi, Visiting Scholar, 2013-2014
90. Mehmet Omer, Visiting Scholar, 2013
91. Dong Ju Lee, Visiting Scholar, 2012-2013
92. Clemens Buschhoff, Visiting Scholar, 2012-2013
93. Claire Daniel, Visiting Scholar, 2012-2013
94. Julia Schweiss, Visiting Scholar, 2012-2013
95. Wook Ryol Hwang, Visiting Scholar, 2012
96. Jens Zangenberg Hansen, Visiting Scholar, 2012
97. Lean Falk, Visiting Scholar, 2012
98. Andreas Nonn, Visiting Scholar, 2012
99. Maxime Leblanc, Visiting Scholar, 2012
100. Sinan Boztepe, Visiting Scholar, 2012
101. Metin Tanoglu, Visiting Professor, 2012
102. Clemens Buschhoff, Visiting Scholar, 2012
103. Abdullah Tugrul Seyhan, Visiting Professor, 2012
104. Martin Noll, Visiting Scholar, 2011
105. Juan Vico Rodriguez, Visiting Scholar, 2011
106. Ramon Tirschmann, Visiting Scholar, 2011
107. Ishita Biswas, Visiting Scholar, 2011-2013
108. Andrew Rider, Visiting Researcher, 2011-2012
109. Roman Weber, Visiting Scholar, 2011-2012
110. Sven Schneiders, Visiting Scholar, 2011-2012
111. Simon Hammer, Visiting Scholar, 2010-2011
112. Dominik Hanft, Visiting Scholar, 2010-2011
113. Christopher Lenz, Visiting Scholar, 2010-2011
114. Johannes Lutz, Visiting Scholar, 2010-2011
115. Daniel Kroll, Visiting Scholar, 2010

116. Johannes Feddersen, Visiting Scholar, 2010
117. Fabien Martinez, Visiting Scholar, 2010
118. Jamie Timms, Visiting Scholar, 2010
119. Hyoung Geun Kim, Visiting Scholar, 2009-2010
120. Christian Schoenborn, Visiting Scholar, 2009-2010
121. Wook Ryoul Hwang, Visiting Professor, 2009-2010
122. Claas Ehlbeck, Visiting Scholar, 2009
123. Sascha Berger, Visiting Scholar, 2008-2009
124. Omer Eksik, Visiting Scholar, 2008-2009
125. Kai Zweiacker, Visiting Scholar, 2008-2009
126. Arun Agrawal, Visiting Scholar, 2008
127. Laurent Garnier, Visiting Scholar, 2008
128. Veit Wodicka, Visitint Scholar, 2008
129. Damien Faudot, Visiting Scholar, 2008
130. Shashank Sharma, Visiting Scholar, 2008
131. Stephan Ritter, Visiting Schoalr, 2008
132. Chau Bui, Visiting Scholar, 2007-2008
133. Mira Reuter, Visiting Scholar, 2007-2008
134. Martin Finger, Visiting Scholar, 2007-2008
135. Olivia Polczyk, Visiting Schoalar, 2007-2008
136. Stefan Huber, Visiting Scholar, 2007
137. Limin Gao, Visiting Scholar, 2007
138. Anastasia Lorenz, Visiting Scholar, 2007
139. Aude Catry, Visiting Scholar, 2007
140. Nathan Depenbusch, Visiting Scholar, 2007
141. Hung-chieh Lo, Visiting Scholar, 2007
142. Stephan Mehling, Visiting Scholar, 2007
143. Praveen Pasupuleti, Visiting Scholar, 2007
144. Tristan Reitz, Visiting Scholar, 2007
145. Diana Scialom, Visiting Scholar, 2007
146. Richard, Teruya, Visiting Scholar, 2007
147. Michael Glowania, Visiting Scholar, 2007
148. Konstantin Friesen, Visiting Scholar, 2007
149. Luigi-Jules Vandi, Visiting Scholar, 2007
150. Nadin Vogel, Visiting Scholar, 2007
151. Timo Gebauer, Visiting Scholar, 2006-2007
152. Manoj Saraswat, Visiting Scholar, 2006-2007
153. Abdullah Tugrul Seyan, Visiting Scholar, 2006-2007
154. Christopher Baudron, Visiting Scholar, 2006

155. Jens Schuster, Visiting Scholar, 2006
156. Pierre Frey, Visiting Scholar, 2006
157. Vladimir Gendlin, Visiting Scholar, 2006
158. Julien Henau, Visiting Scholar, 2006
159. Fabian Klein, Visiting Scholar, 2006
160. Patrick Plitzner, Visiting Scholar, 2006
161. Gunner Hubel, Visiting Scholar, 2006
162. Susanna Laurenzi, Visiting Scholar, 2005-2006
163. Josef Mauer, Visiting Scholar, 2005-2006
164. Patrick Schauenburg, Visiting Scholar, 2005-2006
165. Erwan Istasses, Visiting Scholar, 2005-2008
166. Sebastian Scholz, Visiting Scholar, 2005
167. Bjorn Becker, Visiting Scholar, 2005
168. Nicolas Vernin, Visiting Scholar, 2005
169. Victor Bondiek, Visiting Scholar, 2005
170. Alex Mueller, Visiting Scholar, 2005
171. Christian Niggemann, Visiting Scholar, 2005
172. Maik Himstedt, Visiting Scholar, 2005
173. Dominik Bender, Visiting Scholar, 2004
174. Alex Mueller, Visiting Scholar, 2004
175. Charolette Corlay, Visiting Scholar, 2004
176. Sowmya Subramanian, Visiting Scholar, 2004
177. Christoph Bammann, Visiting Scholar, 2004
178. Peter Vancsa, Visiting Scholar, 2003-2004
179. Elisabeth Wolf, Visiting Scholar, 2003-2004
180. Achim Nickel, Visiting Scholar, 2003-2004
181. Oded Rabinovitch, Visiting Scholar, 2002-2006
182. Ralf Eigl, Visiting Scholar, 2002-2003
183. Michael Kurz, Visiting Scholar, 2002-2003
184. Susanna Laurenzi, Visiting Scholar, 2002-2003
185. Christian Reichert, Visiting Scholar, 2002-2003
186. Andre Haertelt, Visiting Scholar, 2002-2003
187. Tom Roida, Visiting Scholar, 2002-2003
188. Alexander Roshau, Visiting Scholar, 2002
189. Andre Jamnik, Visiting Scholar, 2002
190. Kazimieras Juzenas, Visiting Scholar, 2002
191. Jochen Krehl, Visiting Scholar, 2002
192. Tomas Cerniauskas, Visiting Scholar, 2001-2002
193. Leif A. Carlsson, Visiting Professor, Florida Atlantic University, Summer 2003-2008

194. Tomas Cerniauskas, Visiting Scholar, Kaunas University of Technology, “Evaluation of the Rapid Re-Formable Tooling for VARTM Processing”, 2001-2002

195. Klaus Kristian Engel, Visiting Scholar, Fachhochschule Kaiserslautern, “Intelligent VARTM Processing”, 2001-2002

196. Andre Jamnik, Visiting Scholar, 2002

197. Kazimieras Juzenas, Visiting Scholar, Kaunas University of Technology, “Ultrasonic Evaluation of VARTM Parts”, 2001-20002

198. Jochen Kreho, Visiting Scholar, 2002

199. Hongyun Li, Visiting Scholar, “CAV Integrated Hybrid Structures”, 2001

200. Jens Mueller, Visiting Scholar, Fachhochschule fur Technik Esslingen, MANTECH and ONR, 2001

201. Stephan Pressler, Visiting Scholar, Fachhochschule fuer Technik Esslinger, MANTECH, 2001

202. Hilko Siebels, Visiting Scholar, Universitaet Karlsruhe, CAV-IHS. 2001-2002

203. Jun Xiao, Visiting Scholar

204. Peter Bengstsson, Visiting Scholar, Ecole Europenne d’Ingenieurs en Genie des Materiaux, “Induction Based Processing of Carbon Thermoplastics”, 2001

205. Lisa Carlgren, Visiting Scholar, University of Lulea, CTC, 2001

206. Dominik Decker, Visiting Scholar, Beundesministerium fuer Verteidigung Ministry of Defense, MANTECH, 2001

207. Olivier Emeraud, Visiting Scholar, Universite de Bretagne Sud, “Intelligent VARTM Manufacturing”, 2001

208. Kati Flemmig, Visiting Scholar, Technische Universitat Dresden, “Porous Titanium Materials”, 2001

209. Thomas Gietl, Visiting Scholar, University of Bayreuth, “Metal Foam Development”, 2001

210. Cecilia Lauri, Visiting Scholar, University of Lulea, UDLP, 2001

211. Helene Le Houedec, Visiting Scholar, Universite de Bretagne Sud, “VARTM Processing and Testing of Composite Integral Armor”, 2001

212. Mariannick Roche, Visiting Scholar, Universite de Bretagne Sud, “Intelligent VARTM Manufacturing”, 2001

213. Gaelle Rodary, Visiting Scholar, “Binder Preform”, EEIGM, 2001

214. Bettina Spandl, Visiting Scholar, University of Bayreuth, “Metal Foam Development”, 2001

215. Martina Trahan, Visiting Scholar, University of Applied Sciences Kaiserslautern,” SMART Layer Fabrication Based on Fiberoptics”, 2001

216. Heike Fichna, Visiting Scholar, “Automated Resin Mixing for the VARTM Process”, 2000-2001

217. Jean-Etienne Fournier, Visiting Scholar, CAV Integrated Hybrid Structure, 2000-2001

218. Jurgen Gluch, Visiting Scholar, Powder Metallurgy, 2000-2001

219. Stephane Maniwczak, Visiting Scholar, 2000-2001

220. Georg Bedal, Visiting Scholar, Intelligent VARTM Testbed, 2000
221. Georg Burghart, Visiting Scholar, ONR, 2000
222. Florian Despang, Visiting Scholar, Technical University of Dresden, “Powder Metallurgy”, 2000
223. Daniel Schumacher, Visiting Scholar, 2000
224. Siegfried Zeh, Visiting Scholar, Acousto-Ultrasonice Set-up, 2000
225. Steffen Baumgaertner, Visiting Scholar, Implementing IR-Thermography, 1999-2000
226. Ismail Dagli, Visiting Student from Esslingen, Germany, VARTM Control, 1999
227. Boris Gourichon, Visiting Scholar, SERDP, 1999-2000
228. Lijun Han, Visiting Scholar, China, VARTM Processing, February 1999
229. Erik Hartlieb, Visiting Scholar, VARTM, 1999-2000
230. Christoph Hoffmann, Visiting Student, Aachen, Germany, completing master’s thesis on complex flow pattern analysis, February 1999
231. Marcus Knappe, Visiting Student from Esslingen, Germany, Nondestructive Acousto-ultrasonic Evaluation of Composites, August 1998–February 1999
232. Alfred Leibbrand, Visiting Scholar, VARTM, 1999-2000
233. Sophie Mangin, Visiting Student, Paris, France, Induction Heating /Through-Thickness Degradation Studies, March 1999
234. Harald Schuler, Visiting Scholar, VARTM, 1999-2000
235. Noel Tierney, Visiting Scholar, 1999
236. Juergen Wuest, Visiting Student from Esslingen, Germany Acousto-Ultrasound Measurements and NDE, March 1999
237. Geoffrey McKnight, Co-injection Processing, 1997–1998
238. Victor Avilés-Hernández, Visiting Student, University of Puerto Rico at Maguayez, (civil engineering, with Prof. Kevin Folliard), 1997–1998
239. Kin Liao, Durability of Glass/Vinyl Ester Composites, 1997
240. Josephina Diaz-Perez, Flow Sensing and Cure using SMARTweave, 1997
241. Shridhar Yarlagadda, “Induction Heating/Bonding of Composites,” ARL Composite Materials Research Collaborative Program, 1996–1997
242. Andreas Eggert, University of Kaiserslautern, Germany, “Activity-Based Cost Analysis of Manufacturing Processes for the Composite Armored Vehicle,” 1996
243. Bernhard Stieglmaier, Fachhochshule Polytechnic Munich, Engineering Physics, “Sensing and Control of Robotic Fiber Placement,” 1996–1997
244. Itty Matthew, “Diffusion-Enhanced Adhesion,” summer intern, CMR Program
245. Vasyl Kharik, “Interphase Mechanics,” summer intern, CMR Program, 1996
246. Kessavan Potty, “Design and Analysis of Flexible Couplants,” 1996–1997
247. Steven McKnight, “Joining of Dissimilar Materials,” 1995–1996

248. Frank Woehrmann, “Robotic Fiber Placement,” Institute of Osnabruck, Germany, 1995–1996

249. Veronique Monnard, “Processing and Characterization of Bonds Between Thermoset and Thermoplastic Composites,” Ecole Polytechnique Federale de Lausanne, Switzerland, 1995–1996

250. Julien Dohuuduc, Ecole Polytechnique Federale de Lausanne, Switzerland, 1995

251. Andre Bals, Ecole Polytechnique Federale de Lausanne, Switzerland, 1995

252. Andreas Obst, “Mechanics of Composites,” 1995–1996

253. Knut Krieger, “On-line Inspection Techniques for Void Content During Thermoplastic Tow Placement,” Lehrstuhl fur Vebundwerkstoffe, TU Chemnitz–Zwickau, 1995

254. Birgit M. Bauer, Experimental Validation of Thermoplastic Tow Placement, University of Erlangen, Erlangen, Germany, 1994

255. Dirk Heider, University of Aachen, Germany, “On-line NDE Techniques for Thermoplastic Pultrusion,” 1994–95; “Neural Network Based Control for Thermoplastic Tow Placement,” 1995–1996

256. Nuri B. Ersoy, Ph.D. candidate, Department of Mechanical Engineering, Bogazici University, 1995

257. Eric Faude, “Fiber Placement Head Development,” Student Exchange Program from Carl Duisberg Society, February–August 1993

258. Torsten Flemming, “Process-Induced Residual Stress and Warpage During Fiber Placement,” 1994

259. Ranga Pitchumani, “Development of Rapid, Affordable Manufacturing Technologies for Polymer- and Ceramic-Matrix Composites,” 1992–1994

260. Xiaogang Huang, “Modeling Transverse Cracking in Composite Laminates,” 1992–1996

261. Chris Hoppel, “Mechanics and Failure of Thick Section Mechanics,” 1993–1994

262. Shen Zuwei, “Characterization of Transverse Cracking,” 1993–1994

Over 342 Undergraduate Research Assistants and Summer Interns, 1981 - 2022

1. Jennifer Pahnke, Science and Engineering Scholar, 2002
2. John Gillespie III, Summer Intern, 2002
3. Yanmin Zhang, Research Technician, 2002
4. Preethi Natarajan, Research Technician, 2002
5. Maxim Baldytchev, Research Technician, 2002
6. Jason Etherington, Research Technician, 2001
7. Oluseyi Olasupo Onawola, Summer Intern, 2002
8. Asadul Md. Haque, Research Technician, 2002
9. Marc Orgovan, Research Technician, 2002
10. Khammouane Dejvongsa, Research Technician, 2000-2002
11. Erica C Eckler, Research Technician, 2000-2001
12. Ashiq A Quabili, Research Technician
13. Rosa, Elvin O, Research Technician, 2001
14. Sean Devlin, Research Technician. 2001
15. John Yakubic, Research Technician, 2001
16. Benjamin Tang, Research Technician, 2001
17. John Fader, Research Technician, 2001
18. Ravi Prasad, Research Technician, 2001
19. Adrien Salomon, Research Technician, 2001-2002
20. Jordan Wagner, Research Technician, 2001
21. Saravana Kumar, Research Technician, 2001
22. David A Madanat, Research Technician, 2001
23. Yaqiang Ding, Research Technician, 2001
24. Theresa Gajewski, Research Technician, 2001
25. Matthew R. Charnik, Research Technician, 2000-2001
26. Martin Saliger, Summer Intern, 1998
27. Rajesh Hirandani, Summer Intern (TU), VARTM Controller, 1998
28. Nitesh Jadhav, Summer Intern (TU), VARTM SMARTweave, 1998
29. Aurelia Gardner, Summer Intern (TU), Ballistic Performance, 1998
30. Lesa Austin, Summer Intern, (TU) Cure Behavior, 1998
31. Makeba Atkins, Summer Intern (TU), Cure Behavior, 1998
32. Lilma dos S. Ribeiro, Summer Intern (DelDOT 896), 1998

33. David Henderson, Summer Intern, (DelDOT 896), 1998
34. Montri Dechasakulcom, Summer Intern (BIR), 1998
35. Sean Wells, Summer Intern (CMR), Induction-Based Repair, 1998
36. Matt Savage, Summer Intern (CMR), 1998
37. Peter Peno, Summer Intern, (CMR) Induction Robot Head, 1998
38. Binal Patel, Summer Intern, Coatings (CMR), 1998
39. Caroline Hurst, Summer Intern (CMR), 1998
40. David Daughton, Summer Intern (CMR), Metal Films on Polymers, 1998
41. Betsy Ablao, Summer Intern, Composite Modeling (CMR), 1998
42. Robert Plitko, Research Technician, Fabrication of Angle Bends Using SCRIMP, 1996
43. Rob Harbeson, Research Technician, Infrastructure Renewal, 1996–97
44. Jon Olin, Research Technician, Composite Infrastructure, 1996
45. Alyson Radel, Research Technician, Composite Infrastructure, 1996
46. Brian Revels, Research Technician, Composite Infrastructure, 1996
47. Darin Triolo, Research Technician, Composite Infrastructure, 1996
48. David Conway, Research Technician, Joining, 1996
49. Zeenab Razak, Research Technician, Robotics (FP/Induction), 1996
50. Raymond Foulk, Research Technician, Robotics (FP/Induction), 1996
51. Michael Rosner, Research Technician, SW/Sensor Data Visualization, 1996
52. Jason Tiffany, Research Technician, Autoclave Processing, 1996
53. Jason Pusey, Research Technician, RTM, 1996
54. Allyson Wilkes, Research Technician, Specimen Fab/Signature, 1996
55. James Elwood, Research Technician, A2/E3 Durability, 1996
56. Brian Richard, Research Technician, SCRIMP/Flow Control, 1996
57. Adam Martin, Research Technician, Induction Heating, 1996
58. Frank Puchino, Lab Technician, 1996
59. David Malotky, Lab Technician, 1996–97
60. Dewey Thomas, Lab Technician, 1995
61. Helen Yen, Lab Technician, 1995–96
62. Peter Wyatt, Lab Technician, 1995–96
63. Sagar Mathur, Lab Technician, 1995–96
64. Michael Lentz, Lab Technician, 1994–95
65. Christopher Lawler, Lab Technician, 1994–95

66. Dennis Brinley, Lab Technician, 1994–1995
67. Erdal Karamuk, Lab Technician, 1994
68. Kevin Perdue, Lab Technician, 1993–1995
69. Jay Iceman, Lab Technician, 1993
70. Clint Weslager, Lab Technician, 1993–94
71. Sherise Wood, Lab Technician, 1993 to 1994
72. John Franco, Lab Technician, 1993
73. Paul Franco, Lab Technician, 1993
74. Michael Tolin, Lab Technician, 1993–1994
75. Gary March, Lab Technician, 1993
76. Neil Garrett, Lab Technician, 1992–93
77. Bruce Rettig, Lab Technician, 1992–93
78. Scott Stuart, Lab Technician, 1992–93
79. Andy Schwartz, Lab Technician, 1992
80. Francis Mulvey, Lab Technician, 1992
81. Chris Mundis, Lab Technician, 1991–92
82. Jenny Sterba, Lab Technician, 1991–92
83. Scott Morin, Lab Technician, 1991–92
84. David O'Halloran, Lab Technician, 1991
85. John McGeehan, Lab Technician, 1990–91
86. William Eberle, Lab Technician, 1990–91
87. Scott Holmes, Lab Technician, 1989–90
88. Eric Tu, Lab Technician, 1989–90
89. Robert Pigford, Lab Technician, 1989–90
90. Eric Phillipe, Lab Technician, 1989
91. Robert Zachman, Lab Technician, 1989
92. Ian Howie, Lab Technician, 1989–92
93. John Stevens, Lab Technician, 1988–90
94. Mark Savarese, Lab Technician, 1988–89
95. Catherine Baron, Lab Technician, 1986
96. Bob Kaminski, Senior Research, 1986
97. Ed Ashmead, Senior Research, 1986
98. James Snowden, Software Development, 1985–87

99. Joel Garrett, Software Development, 1983–87
100. Brian Waibel, Software Development, 1983–87
101. Skip Shuda, Software Development, 1982–83
102. Gary Becht, Lab Technician, 1983–85
103. Dan Mongan, Lab Technician, 1983–85
104. Chris Rutz, Lab Technician, 1983–84
105. Roseanne Givler, Lab Technician, 1982–83
106. Melody Munson, Lab Technician, 1980–82
107. Steve Ellery, Lab Technician, 1981–83

Undergraduate Research Projects

1. Chad Daksha, "Parametrization of ReaxFF for S-glass using Genetic Algorithm and Machine Learning."
2. Ka Lo Michelle Choi, "Durability of the Carbon-Fiber/Vinyl-Ester Interphase," Imperial College of the University of London, 2000
3. Raymond Foulk, "Intelligent Control of Induction Heating," Senior Thesis/Degree with Distinction Candidate, 99BSME
4. Z. Z. Wong, "Ultraviolet Curing of a GFRP Composite Based on Vinyl-Ester," Imperial College of the University of London, 1997
5. Zeenab Razak, Imperial College of the University of London, 1996
6. Ahmed Monib, "Repair and Residual Strength of Thick Section Composites," 96BSME
7. Andre Bals, "Thermal Degradation of Thermoset Composites," Laboratoire de Technologie des
8. Composites et Polymeres, Ecole Polytechnique Federale de Lausanne, Switzerland, 1994
9. Julien Do Huu Duc, "Relaxation in Polyimide Composites," Laboratoire de Technologie des Composites et Polymeres, Ecole Polytechnique Federale de Lausanne, Switzerland, 1994
10. Clint Weslager, "Mine-Blast Resistant Sandwich Structures," 95BSME
11. Erdal Karamuk, "Induction Welding of Composites," Laboratoire de Technologie des Composites et Polymeres, Ecole Polytechnique Federale de Lausanne, Switzerland, 1994
12. Beat Luthi, "Neural Networks for Thermoplastic Tow Placement," Laboratoire de Technologie des Composites et Polymeres, Ecole Polytechnique Federale de Lausanne, Switzerland, 1994
13. Eric Wetzel, "Induction Bonding of Composites," 95BSME
14. Paul Franco, "Joining of Glass/Polypropylene and Anodized Aluminum," 94BSME
15. Scott Morin, "Transverse Cracking in Polymer Matrix Composites," 93BSME
16. Ian Howie, "Resistance Welding of Dual Polymer Radel 8320/Polysulfone Composites," 92BSME
17. John McGeehan, "Characterization of Processed Induced Void Content during Structural Reaction Injection Molding of Preforms," 91BSME
18. Scott Holmes, "Three-Dimensional Reinforcement for Composite Structures," 90BSME
19. Roderic Don, "Fusion Bonding of Thermoplastic Composites," 90BSME
20. Jeffrey Burmeister, "Vibration Damping in Composite Laminate," 88BSME
21. Tom Chapman, "Temperature and Strain Rate Effects on Mode II Interlaminar Fracture," co-advised with R. B. Pipes, 86BSME
22. Ed Ashmead, "In-Situ Mode I Interlaminar Fracture," 86BSME
23. Bob Kaminski, "Vibration Damping in Composite Laminates," 86BSME

Design Projects

- Laser Measuring Device for Hygrothermal Growth Characterization in Composite Materials, sponsored by U. S. Army, 1997–98.
- Design of a Thermoplastic Composite Pressure Hull with Randy McCreary undergraduate intern at MIT, 1994.
- Artillery Resupplier with W. Grant Carboy III, William Everitt, Christopher Snodgrass, and Steve Viskocil sponsored by U. S. Army, 1993–94.
- Composite Pallet Program, with V. Basilio, A. Miller and D. Skinner, sponsored by U. S. Army, 1992–93.
- Composite Generator Housing, with I. Howie, J. Tompkins, J. Lambert, and B. Burd, sponsored by U. S. Army, ASME Award Winner, (article included in *Mechanical Engineering Magazine*), 1991–92.
- Automated Resistance Welder, with R. C. Don, S. T. Holmes, S. M. Andersen, and B. S. Leach, sponsored by Alcoa, 1990–91; ASME Award Winner; patent issued, 1993.

Continuing Education

- "Fusion Bonding," Annual CCM Composites Workshop, University of Delaware, Newark, DE, May 10–12, 1994.
- "Experimental Mechanics I and II," Annual CCM Composites Workshop, University of Delaware, Newark, DE, May 10–12, 1994.
- "Experimental Mechanics I and II," Annual CCM Composites Workshop, University of Delaware, Newark, DE, May 19–21, 1992.
- "Joining of Composites," Annual CCM Composites Workshop, University of Delaware, Newark, DE, May 19–21, 1992.
- "Experimental Mechanics I and II," Tenth Annual CCM Composites Workshop, University of Delaware, Newark, DE, April 22–24, 1991.
- "Joining of Thermoplastic Composites," Tenth Annual CCM Composites Workshop, University of Delaware, Newark, DE, April 22–24, 1991.
- "Residual Stresses in Composites," Tenth Annual CCM Composites Workshop, University of Delaware, April 22–24, 1991.
- "Experimental Mechanics of Composites," and "Interlaminar Fracture of Composites," ALCOA Technical Laboratories, Pittsburgh, PA, April 2–4, 1991.
- "Thermoplastic Composites," AIAA Composites Short Course, St. Louis, MO, April 20, 1991.
- "Mechanics of Composites," Tutorial on Composites, Sixth Annual ASM/ESD Advanced Composites/Exposition, Detroit, MI, October 8–11, 1990.
- "Experimental Mechanics of Composites," Tutorial on Composites, 6th Annual ASM/ESD Advanced Composites/Exposition, Detroit, MI, October 8–11, 1990.
- "Residual Stresses in Thick Section Thermosetting Composites," Center for Composite Materials Annual Workshop, May, University of Delaware, Newark, DE, May 1990.
- "Residual Stresses in Thermoplastic Composites," Center for Composite Materials Annual Workshop, University of Delaware, Newark, DE, May 1990.
- "Experimental Mechanics I," Center for Composite Materials Annual Workshop, University of Delaware, Newark, DE, 1990.
- "Experimental Mechanics II," Center for Composite Materials Annual Workshop, University of Delaware, Newark, DE, May 1990.
- "Fusion Bonding and Welding of Thermoplastic Composites," Center for Composite Materials Annual Workshop, University of Delaware, Newark, DE, May 1990.
- "Experimental Mechanics of Composite Materials," Center for Composite Materials Annual Workshop, University of Delaware, Newark, DE, 1990.
- "Interlaminar Fracture of Composites," Center for Composite Materials Annual Workshop, University of Delaware, Newark, DE, May 1989.
- "Strength and Failure of Composites," Center for Composite Materials Annual Workshop, University of Delaware, Newark, DE, May 1988.

- "Strength and Failure of Composites," DuPont Professional Course on Composite Materials, the Du Pont Company, April 1987.
- "Strength and Failure of Composites," Center for Composite Materials Annual Workshop, University of Delaware, Newark, DE, 1987.
- "Basic Laminate Mechanics," Center for Composite Materials Annual Workshop, University of Delaware, Newark, DE, 1987.
- "Interlaminar Failure: Characterization and Impact on Design," American Society for Composites/Center for Composite Materials Workshop, San Diego, CA, January 1987.
- "CCM Software for Composites Analysis and Design," Center for Composite Materials Annual Workshop, University of Delaware, Newark, DE, May 1986.
- "Strength and Fracture of Composites, Design Considerations," Center for Composite Materials Workshop, FMC Corporation, January, Santa Clara, CA, 1986.
- "CCM Software for Design of Composites: Solid Mechanics," Center for Composite Materials Annual Workshop, University of Delaware, Newark, DE, May 1985.
- "Microcomputer Software Workshop," Center for Composite Materials Annual Workshops, University of Delaware, Newark, DE, May 1984.
- "Finite Element Methods in Composite Analysis and Design," Center for Composite Materials Annual Workshop, University of Delaware, Newark, DE, May 1984.
- "Interlaminar Fracture in Compression," Center for Composite Materials Annual Workshop, University of Delaware, Newark, DE, May 1984.
- "Computer-Aided Design and Optimization Techniques," Center for Composite Materials Annual Workshop, University of Delaware, Newark, DE, May 1983.

Research Funding

Gillespie's Awarded Contracts and Grants: 1989-2022

Total Funding: $186M

Industrial Gift Funding: 1996-2020

Total Funding: $10.08M

Award ID	Award Title	PI	Begin	End	Sponsor	Budget
AGR 940606	(D) HERC GRANT-IN-AID	Gillespie	7/1/1989	12/31/2050	Hercules, Inc.	$ 125,000
Closed Before PS	DUP CYLINDER PERFORM	Gillespie	9/1/1989	8/31/1990	EI DUPONT DE NEMOURS	$ 93,448
Closed Before PS	BAC 3-D REINFORCED T	Gillespie	5/1/1990	8/31/1990	BOEING AEROSPACE CO	$ 25,000
Closed Before PS	ST MATCH DUP DRP91	Gillespie	7/1/1990	6/30/1991	DE RESEARCH PARTNERSHIP	$ 25,000
Closed Before PS	ST MATCH BAC DRP91	Gillespie	7/1/1990	8/31/1990	DE RESEARCH PARTNERSHIP	$ 25,000
Closed Before PS	DUP 3-D FILAMENT WIN	Gillespie	1/1/1991	12/31/1991	EI DUPONT DE NEMOURS	$ 25,000
Closed Before PS	DUP RESIDUAL STRESS	Gillespie	2/15/1991	12/31/1991	EI DUPONT DE NEMOURS	$ 54,747
Closed Before PS	LOCKHEED BONDING DRP 92 GILLESPIE	Gillespie	6/1/1991	6/30/1992	LOCKHEED AER SYSTEMS CO	$ 79,961
Closed Before PS	MCD WELDING	Gillespie	6/1/1991	10/31/1991	MCDONALD DOUGLASS CORP	$ 29,846
Closed Before PS	DUP HULL JOINTS	Gillespie	7/1/1991	7/31/1992	EI DUPONT DE NEMOURS	$ 57,402
Closed Before PS	ST MATCH DUP DRP92 GILLESPIE	Gillespie	7/1/1991	6/30/1992	DE RESEARCH PARTNERSHIP	$ 19,900
Closed Before PS	ST MATCH LOCK DRP92 GILLESPIE	Gillespie	7/1/1991	6/30/1992	DE RESEARCH PARTNERSHIP	$ 79,000
Closed Before PS	DUP DRP 91.92 GILLESPIE	Gillespie	7/1/1991	6/30/1992	EI DUPONT DE NEMOURS	$ 25,000
Closed Before PS	UTC/SA/THERMOPLAS-PHASE II	Gillespie	11/1/1991	10/31/1992	UNITED TECHNOLOGY CORP	$ 63,552
Closed Before PS	UTC SIKORSKY/AUTO WELD PHASE II	Gillespie	11/1/1991	6/30/1992	UNITED TECHNOLOGY CORP	$ 43,563
Closed Before PS	SIKORSKY THERMPOLAS	Gillespie	1/1/1992	11/30/1993	SIKORSKY AIRCRAFT	$ 20,000
Closed Before PS	DUP RESIDUAL STRESS ANALYSIS	Gillespie	1/1/1992	2/28/1993	EI DUPONT DE NEMOURS	$ 55,000
Closed Before PS	DARPA WINDING-STEINER	Gillespie	5/15/1992	1/31/1994	DEFENSE ADVANCED RES PROJ	$ 243,334
Closed Before PS	DUP DRP93 QUALITY ASSMT FLMT	Gillespie	6/1/1992	2/28/1993	EI DUPONT DE NEMOURS	$ 55,000
Closed Before PS	ST MATCH DUP DRP93 GILLESPIE	Gillespie	7/1/1992	2/28/1993	DE RESEARCH PARTNERSHIP	$ 55,000
Closed Before PS	US ARMY-APG BONDED WEDGES	Gillespie	7/1/1992	11/30/1992	US ARMY ABERDEEN PROV GRO	$ 18,000
Closed Before PS	LOCKHEED BONDLINE	Gillespie	10/1/1992	12/31/1994	LOCKHEED AER SYSTEMS CO	$ 25,000
Closed Before PS	FMC-CAV	Gillespie	11/6/1992	7/1/1993	FMC CORPORATION	$ 20,000
Closed Before PS	ST MATCH DRP94 DUP GILLESPIE	Gillespie	7/1/1993	12/31/1994	DE RESEARCH PARTNERSHIP	$ 40,000
Closed Before PS	DUP/DRP 94 CENTRIFUGE	Gillespie	7/1/1993	12/31/1994	EI DUPONT DE NEMOURS	$ 40,000
Closed Before PS	UNIDEF FMC CAV ATD	Gillespie	3/1/1994	6/28/1996	UNITED DEFENSE, LP	$ 514,886

Closed Before PS	UNIDEF FMC CAV ATD-ADD ON	Gillespie	3/9/1994	6/30/1997	UNITED DEFENSE, LP	$ 35,610
Closed Before PS	ARDEQ PICCATINY (RFQ)	Gillespie	4/1/1994	9/15/1994	US ARMY ARDEC, PICATTINNY	$ 23,947
Closed Before PS	UCSD BRIDGE ARPA	Gillespie	6/9/1994	8/31/1996	UNIV CALIF SAN DIEGO	$ 44,551
Closed Before PS	UCSD BRIDGE ARPA	Gillespie	6/9/1994	5/31/1996	UNIV CALIF SAN DIEGO	$ 657,900
Closed Before PS	UCSD BRIDGE ARPA	Gillespie	6/9/1994	5/31/1996	UNIV CALIF SAN DIEGO	$ 702,451
Closed Before PS	ARO RAPTEC-ACM	Gillespie	9/15/1994	12/31/1997	ARMY RESEARCH OFFICE	$ 2,980,000
Closed Before PS	NACI/NAVY	Gillespie	9/30/1994	1/31/1995	NATIVE AMER CONSLTNTS, INC.	$ 79,000
Closed Before PS	UCSB/ARPA/ACP PROGRAM	Gillespie	11/1/1994	10/31/1995	UNIV CA S BARBARA	$ 250,000
Closed Before PS	NSWC-STATIC & FATIGUE	Gillespie	12/23/1994	12/22/1996	NAVAL SURFACE WEAPONS CTR	$ 302,300
Closed Before PS	UNIDEF SIX SIGMA	Gillespie	2/9/1995	8/7/1995	UNITED DEFENSE, LP	$ 49,400
Closed Before PS	DUP/AFOSR WELDTECH-PMC	Gillespie	2/13/1995	2/12/1996	EI DUPONT DE NEMOURS	$ 75,000
Closed Before PS	ARO ARL/URETH-MAT COMP	Gillespie	6/15/1995	7/31/1998	ARMY RESEARCH OFFICE	$ 113,010
Closed Before PS	ST MATCH DRP96 HARDCORE GILLESPIE	Gillespie	8/1/1995	6/30/1997	DE RESEARCH PARTNERSHIP	$ 50,000
Closed Before PS	HARDCORE DRP96/97 GILLESPIE	Gillespie	8/1/1995	12/31/1996	HARDCORE DUP COMPOSITES	$ 375,000
Closed Before PS	AROSR/DURIP EQPMT	Gillespie	8/1/1995	12/31/1996	USAF OFF OF SCI RESEARCH	$ 225,000
AGR 19951129	(D) TUSKEGEE/ARO ARMOR RTM	Gillespie	9/29/1995	9/30/2001	Tuskegee University	$ 2,399,949
Closed Before PS	ATLRC/ARPA MODEL DEV MOD SYSTEMS	Gillespie	10/31/1995	8/1/1996	ATLANTIC RESEARCH CORP	$ 45,000
Closed Before PS	TRA DTI 97 DECKS	Gillespie	7/7/1996	6/30/1998	DEL DEPT TRANSPORTATION	$ 45,000
Closed Before PS	ARO DURIP	Gillespie	7/16/1996	7/15/1997	ARMY RESEARCH OFFICE	$ 280,142
Closed Before PS	TRA DTI 96 COMPOSITE SLAB BRIDGE	Gillespie	9/1/1996	6/30/2000	DEL DEPT TRANSPORTATION	$ 600,000
Closed Before PS	ST MATCH DRP97 HARDCORE GILLESPIE	Gillespie	9/1/1996	8/31/1997	DE RESEARCH PARTNERSHIP	$ 110,000
Closed Before PS	HARDCORE/UCSD/ARPA BIR-PHASE II	Gillespie	10/16/1996	10/31/1997	HARDCORE DUP COMPOSITES	$ 616,460
Closed Before PS	TELEDYNE/DARPA ARMOR	Gillespie	7/1/1997	7/9/1999	TELEDYNE BROWN ENGINEERING	$ 275,000
Closed Before PS	TRA DTI98 GIRDERS	Gillespie	7/1/1997	6/30/1999	DEL DEPT TRANSPORTATION	$ 30,000
Closed Before PS	HARDCORE/UCSD/ARPA BIR-PHASE II	Gillespie	11/1/1997	5/31/1998	HARDCORE DUP COMPOSITES	$ 41,124
Closed Before PS	JMI/DARPA BIR-II TASK 16	Gillespie	1/1/1998	9/30/1999	J MULLER INTERNATIONAL INC	$ 198,198
Closed Before PS	TRA/FHA/DTI RT896 BRIDGE	Gillespie	2/18/1998	8/31/1999	DEL DEPT TRANSPORTATION	$ 18,326

Closed Before PS	PRODUCTION PROD/ARO SMART STRUCTURE	Gillespie	3/1/1998	2/28/2000	PRODUCTION PRODUCTS MFG	$ 125,000
Closed Before PS	ARO DURIP HIGH STRAIN RATE	Gillespie	3/2/1998	1/1/2000	ARMY RESEARCH OFFICE	$ 85,500
Closed Before PS	ARO DURIP LOW COST MFG	Gillespie	3/5/1998	1/4/2000	ARMY RESEARCH OFFICE	$ 116,950
DAAL01-98-K-0058	(D) ARL - SERDP	Gillespie	4/30/1998	7/30/2002	US Army Research Laboratory	$ 985,000
	TRITON/ARL/SBIR INDUCTION	Gillespie	6/17/1998	3/31/1999	TRITON SYSTEMS, INC.	$ 85,000
DAAE30-99-2-0100	(D) ARDEC/DUAP THERMOPLASTICS	Gillespie	3/12/1999	3/11/2001	US Army ARDEC	$ 598,906
N00014-99-1-0636	(D) ONR DURIP-99 VARTM	Gillespie	3/31/1999	12/31/2000	Office of Naval Research	$ 334,000
N00014-97-C-0415	(D) ONR VARTM PROCESSING	Gillespie	4/15/1999	8/31/2000	Office of Naval Research	$ 180,000
	TRA/SPR DTI FY00 QC/QA	Gillespie	8/9/1999	8/8/2000	DEL DEPT TRANSPORTATION	$ 29,999
DAAL01-96-2-0048	(D) ARL/CMR FASTRAC PROCESS	Gillespie	1/1/2000	2/3/2001	US Army Research Laboratory	$ 4,109,000
SCJ000114	(D) UDLP/TACOM MANTECH 2000	Gillespie	7/24/2000	8/1/2002	United Defense, LP	$ 550,000
AGR 20000925	(D) 3TEX/ARO-STTR 3-D WOVEN COMPOS	Gillespie	8/15/2000	8/14/2002	3TEX, Inc.	$ 50,000
02-3106-01	(D) TENG/NAS INVEST HYBRID-COMP	Gillespie	8/25/2000	4/20/2002	Teng And Associates, Inc.	$ 48,045
N00014-00-C-0333	(D) ONR INTELLIGENT PROCESSING	Gillespie	9/19/2000	12/31/2002	Office of Naval Research	$ 2,613,000
SCJ000109	(D) UDLP/ARO CAV ATD	Gillespie	10/29/2000	1/31/2002	United Defense, LP	$ 750,000
AGR 20001201	(D) ANHOLT/NSWC CIRTM	Gillespie	11/1/2000	10/31/2002	Anholt Technologies, Inc.	$ 168,200
DAAD19-01-2-0001	(D) ARL/CMRC	Gillespie	12/1/2000	3/31/2006	US Army Research Laboratory	$ 5,943,000
10200409	(D) CTC/ONR CERAMIC ARMOR SYSTEMS	Gillespie	3/1/2001	4/30/2002	Concurrent Technologies	$ 110,000
N00014-01-1-0509	(D) ONR PBT THERMOPLASTIC	Gillespie	3/16/2001	6/30/2002	Office of Naval Research	$ 100,000
N00014-01-1-0595	(D) ONR DURIP INTERPHASE MATERIALS	Gillespie	4/15/2001	4/30/2002	Office of Naval Research	$ 260,985
DAAD19-01-2-0005	(D) ARL CMT	Gillespie	6/29/2001	12/31/2007	US Army Research Laboratory	$ 23,431,165
N00014-01-M-0235	(D) PROD PROD/ONR STTR	Gillespie	7/15/2001	7/14/2002	Production Products Mfg.	$ 42,000
AGR 20010525	(D) SOLECTRIA/ARL SBIR PHASE II	Gillespie	8/27/2001	8/26/2003	Solectria Corporation	$ 249,000
AKX229	(D) BHC/NASA LIQUID MOLDING	Gillespie	10/11/2001	12/31/2002	The Boeing Company	$ 65,000
AGR 20020128	(D) FRAUNHOFER/ARL ALUMINUM-FOAM	Gillespie	11/1/2001	10/31/2003	Fraunhofer USA, Inc.	$ 50,000
AGR 20020423	(D)3TEX/ARL STTR PHASE II	Gillespie	3/8/2002	6/7/2004	3TEX, Inc.	$ 100,000
N00014-02-1-0811	(D) ONR INTELLIGENT PROCESSING	Gillespie	8/1/2002	8/1/2004	Office of Naval Research	$ 1,300,000

N00014-02-C-0392-DEL	(D) TOUCHSTONE/ONR CARBON FOAM	Gillespie	11/5/2002	8/31/2004	Touchstone Research Laboratory	$ 200,000
N00014-03-1-0891	(D) ONR INTELLIGENT PROCESSING3	Gillespie	6/16/2003	6/15/2005	Office of Naval Research	$ 1,260,000
02-3106-02	(D) TENG/NAS COMPOSITE BEAM	Gillespie	9/12/2003	6/3/2006	Teng And Associates, Inc.	$ 94,480
AGR 20040604-03144	(P) 2PHASE TECH/AATD TOOLING	Gillespie	5/1/2004	6/7/2007	2Phase Technologies	$ 347,270
N00014-04-1-0574	(D) ONR AMIPC PHASE VI	Gillespie	5/12/2004	12/31/2005	Office of Naval Research	$ 1,079,000
41000040	(D) CTC/UDLP Phase IV CAV/IHS	Gillespie	10/5/2004	12/15/2006	Concurrent Technologies	$ 281,056
W911NF-05-2-0006	(D)TUSKEGEE/ARO STF	Gillespie	11/18/2004	5/17/2010	Tuskegee University	$ 828,553
N00014-05-1-0832	(D) ONR AMIPC PHASE VII	Gillespie	7/11/2005	1/12/2007	Office of Naval Research	$ 1,080,000
Q3-19018-011	(D) NORTHROP/NAVY FLOW SIMU	Gillespie	10/4/2005	7/31/2006	Northrop Grumman- Ship Systems	$ 165,639
W911NF-06-2-0011	(D) ARL CMR VEHICLE PROTECTION	Gillespie	5/1/2006	12/31/2014	US Army Research Laboratory	$ 7,799,427
N00014-06-1-1000	(D) ONR AMIPC VIII GILLESPIE	Gillespie	7/10/2006	12/31/2011	Office of Naval Research	$ 1,670,000
R000058	(D) 3TEX/NAVY PH II SBIR 3D	Gillespie	9/7/2006	6/8/2009	3TEX, Inc.	$ 330,000
W911NF-07-2-0026	(D) ARL CART	Gillespie	4/23/2007	12/31/2014	US Army Research Laboratory	$ 11,120,405
W911NF-07-1-0387	(D) ARO DURIP MMC GILLESPIE	Gillespie	6/7/2007	6/6/2008	US Army Research Office	$ 106,985
W911NF-07-1-0294	(D) ARO DEPSCOR BLAST FORCES	Gillespie	5/8/2007	5/7/2011	US Army Research Office	$ 650,080
W56HZV-07-C-0142	(D) TACOM COMPOSITE STRUCTURES	Gillespie	6/8/2007	12/31/2013	US Army Tank-Automotive Command	$ 23,490,813
PO# 262K08300	(D) ACCUDYNE NASA PH I STTR	Gillespie	1/25/2008	6/5/2009	Accudyne Systems, Inc.	$ 45,000
8000648	(D) VSYS/AATD ROTORCRAFT DRIVE SYS	Gillespie	2/15/2008	3/1/2011	V System Composites, Inc.	$ 180,000
206-115-P-A	(D) APCI ARL BALLISTIC PROG	Gillespie	9/30/2008	9/30/2013	Air Products and Chemicals, Inc.	$ 3,850,000
9001388	(D)OWENS CORNING FIBER SIZINGS	Gillespie	6/1/2009	6/7/2014	Owens Corning Science & Technology	$ 150,000
N00014-09-1-1011	(D) ONR AMIPC NXT GEN SCALABLE MFG	Gillespie	6/1/2009	5/31/2012	Office of Naval Research	$ 1,760,000
PO# 262M08X002	(D) ACCUDYNE NASA STTR PHASE II	Gillespie	6/20/2009	6/19/2011	Accudyne Systems, Inc.	$ 200,000
N00014-10-1-0971	(D) ONR AMIPC MARITIME MFG	Gillespie	8/5/2010	8/3/2014	Office of Naval Research	$ 1,400,000
PO# 91975	(D) MORGAN SERVICE AGRMT	Gillespie	12/6/2010	12/31/2012	Morgan Advanced Materials & Technologies	$ 200,000
PO# 4503892486	(D) OWENS CORNING FIBER SIZ FY11	Gillespie	2/15/2011	6/30/2012	Owens Corning Science & Technology	$ 150,000

PO# 2146579	(D) BOEING NEXT GEN JWG	Gillespie	12/1/2011	12/21/2012	The Boeing Company	$ 200,000
11A01572	(D) DIAPEDIA ARMY SBIR FOOTWARE	Gillespie	12/12/2011	4/11/2013	DIApedia, LLC	$ 22,500
W911NF-12-2-0022	(D) ARL JHU CRA MEDE	Gillespie	4/16/2012	12/31/2013	US Army Research Laboratory	$ 387,145
W911QX-12-C-0042	(D) DARPA WAR WEB ITRUSS	Gillespie	5/24/2012	5/7/2015	Defense Advanced Research Project	$ 1,617,284
13A00137	(D) OTEC SERVICES AGRMT	Gillespie	11/1/2012	6/30/2016	OTEC International LLC	$ 30,000
W911NF-12-2-0022-CLIN2	(D) ARL JHU CRA MEDE2013	Gillespie	1/1/2013	6/30/2014	Johns Hopkins University	$ 668,247
PO# 304824	(D) ILC NASA SPACE SUIT	Gillespie	5/28/2013	7/10/2015	ILC Dover, Inc.	$ 687,800
13A00085	(D) DIAPEDIA PH II COMPOSITE ORTHOTIC	Gillespie	6/28/2013	12/27/2015	DIApedia, LLC	$ 197,368
W911NF-13-2-0027	ARL CREATE ORTHOTICS	Gillespie	8/22/2013	8/21/2018	US Army Research Laboratory	$ 3,651,708
2001518468-CLIN4	(D) JHU ARL CRA MEDE PLUSUP CLIN4	Gillespie	1/1/2014	4/30/2016	Johns Hopkins University	$ 75,000
W911NF-12-2-0022-CLIN3	(D) ARL JHU CRA MEDE CLIN 3	Gillespie	1/1/2014	12/31/2015	Johns Hopkins University	$ 812,582
201439-124015	(D) NCMS NHTSA BMW DOOR	Gillespie	8/1/2014	8/22/2016	National Ctr for Mfg Sciences	$ 951,243
2001518468	(D) JHU ARL CRA MEDE CLIN 3.15	Gillespie	1/1/2015	4/30/2016	Johns Hopkins University	$ 899,549
16A00654	(D) SABIC PC PREPREG SRV	Gillespie	11/15/2015	5/15/2016	SABIC Global Technologies, B.V.	$ 20,000
20015-18468-CLIN 5	(D) JHU ARL CRAMEDE 2016	Gillespie	1/1/2016	3/31/2017	Johns Hopkins University	$ 949,455
HR0011-16-2-0014	DARPA TUFF GILLESPIE	Gillespie	3/14/2016	10/31/2021	Defense Advanced Research Project	$ 15,194,298
2001518468 CLIN-5.17	JHUARL CRA MEDE 2017	Gillespie	1/1/2017	4/3/2018	Johns Hopkins University	$ 894,391
2001518468 CLIN 8	(D) JHUARL CRA MEDE PLUS UP 17	Gillespie	9/1/2017	12/31/2018	Johns Hopkins University	$ 870,000
2001518468 CLIN 10	JHU ARO CRA MEDE CLIN 10	Gillespie	1/1/2018	3/31/2019	Johns Hopkins University	$ 865,053
EM11159 Task Order 2	EMRE MICROSCALE STUDIES	Gillespie	2/9/2018	12/31/2018	ExxonMobil Corporation	$ 200,000
2001518468 PLUS UP 18	JHU/ARO CRA MEDE PLUS UP 18	Gillespie	7/23/2018	12/31/2019	Johns Hopkins University	$ 811,900
2001518468-CLIN 10.19	JHU/ARL CRA MEDE CLIN 10.19	Gillespie	1/1/2019	12/17/2019	Johns Hopkins University	$ 751,610
EM11159 TASK ORDER 4	EMRE MICROSCALE STUDIES TO4	Gillespie	1/1/2019	12/31/2019	ExxonMobil Corporation	$ 200,000
N00014-19-1-2173	ONR DURIP 18 GILLESPIE	Gillespie	3/1/2019	2/29/2020	Office of Naval Research	$ 395,000
PO# 3676459	DEDO CCM RES MATCH	Gillespie	7/1/1998	6/30/2023	Delaware Economic Dev Office	$ 2,500,000
2001518468 PLUS UP 19	JHU/ARO CRA MEDE PLUS UP 19	Gillespie	4/15/2019	4/14/2021	Johns Hopkins University	$ 1,818,750
EM11159 TASK ORDER 7	EMRE MICROSCALE STUDIES TO7	Gillespie	1/1/2020	12/31/2020	ExxonMobil Corp	$ 200,000
W911NF1820299	ARL CREATE GILLESPIE 2018-23	Gillespie	10/1/2018	9/30/2020	US Army Research Laboratory	$ 14,526,362

2001518468-CLIN 23	JHU/ARL CRA MEDE CLIN 10.23	Gillespie	1/1/2020	6/30/2021	Johns Hopkins University	$ 846,476
2001518468 CLIN 23.21	JHU/ARO CRA MEDE CLIN 23.21	Gillespie	1/1/2021	2/28/2022	Johns Hopkins University	$ 914,807
2001518468 CLIN 26	JHU/ARO CRA MEDE CLIN 26	Gillespie	9/28/2020	4/30/2022	Johns Hopkins University	$ 1,052,500
80NSSC20M0164	NASA ULI AERO AUTO GILLESPIE	Gillespie	9/1/2020	8/31/2024	NASA	$ 5,893,840
W911NF1820299	ARL CREATE GILLESPIE 2018-23	Gillespie	10/1/2018	9/30/2021	US Army Research Laboratory	$ 5,084,862
DE-AR0001333	DOE TUFF IWRAP GILLESPIE	Gillespie	2/1/2021	12/31/2023	US Department of Energy	$ 5,954,639
21A01514	JHU/ARL MEDE PLUS GILLESPIE	Gillespie	12/2/2021	9/2/2023	Johns Hopkins University	$ 999,970
2021-0696	CRG/NASA PHII STTR GILLESPIE	Gillespie	10/25/2021	9/15/2022	Cornerstone Research Group, Inc.	$ 195,427
22A00501	DUPONT MSM GIFT GILLESPIE	Gillespie	10/26/2021	10/25/2024	DuPont Company	$ 250,000
21A01514	JHU/ARO MEDE PLUS GILLESPIE	Gillespie	12/2/2021	9/2/2021	Johns Hopkins University	$ 999,970
						$ 185,988,202